The Lettsomian Lectures
ON
THE OBJECTS AND LIMITS OF OPERATIONS FOR CANCER.

Delivered before the Medical Society of London

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LECTURE III.[1]

Delivered on March 2nd, 1896.

MR. PRESIDENT AND GENTLEMEN,—In this lecture I propose to discuss the various points raised by the cases of cancer of the pharynx which I narrated on the last occasion—viz., the methods of operating, the after-treatment, and the results. In connexion with this matter I have searched the literature very thoroughly for all cases of similar operations on the pharynx, and the result is shown in Table III. In this table I have included cases both of sarcoma and carcinoma for the reason previously stated, but I have excluded instances where the disease only affected the soft palate or the hard palate and did not extend on to the wall of the pharynx. I have also not included some comparatively trivial operations which have been performed from the mouth; operations, for example, where little pieces of tumour growth have been clipped away or snared away, and where the problems which one wishes to consider do not arise. A few operations which appear at first sight to come under this head do undoubtedly appear in the first division of the table, but they are very few in number, and I have not sought to add to them, and on the whole those included even in the first group have been extensive. I have also excluded as far as possible operations which were manifestly left incomplete. A few have also been left out in which the method of removal employed has been inefficient; for example, a case by Studsgaard where a sarcoma was removed by scraping the tumour. And lastly, I have omitted two cases which are frequently referred to in the papers which I have read—namely, one by Schönborn and one by Richardson, where large sarcomata in the wall of the pharynx were removed from outside without opening the pharyngeal cavity. With these exceptions I have as far as I can find included all cases that have been published.

Before proceeding to consider the results as shown by this table I must make some remarks with regard to various points in connexion with the operation. It will be seen on studying the various cases that numerous methods have been employed for gaining access to the parts, and some of these methods have been extensively advocated. Perhaps the operation which has gained the greatest popularity is von Langenbeck's method of gaining access to the tonsil by division of the jaw in front of the masseter. According to this method an oblique incision is made in the anterior triangle downwards to the cornu of the hyoid bone, and then the cheek is divided from the angle of the mouth obliquely downwards and outwards, this incision crossing the jaw just in front of the masseter muscle and joining the oblique one in the neck. The jaw is then sawn through in front of the masseter, and the parts being held aside the tonsillar region is exposed to view. Many modifications have been introduced in this method, more especially in the way of skin incisions, but to these I need not allude. A very important alteration has, however, been made by Mikulicz, which is coming into vogue and consists in division of the ascending ramus of the jaw just above the angle and the extirpation of the whole ramus. A third method which has also been a good deal employed is von Langenbeck's subhyoid pharyngotomy, in which a transverse incision is made in front of the neck through the thyro-hyoid membrane close to the hyoid bone, and the epiglottis being hooked aside a good view of the interior is obtained. My own opinion, however, is that no particular method can be followed in these cases. They are rare and the number which falls into the hands of any one surgeon must be very few, and consequently they will all probably differ from one another in the extent and distribution of the disease; hence each case probably requires a different method of attack, and the surgeon must carefully plan out each operation for himself and not follow any definite rules. I may now refer to the following points.

1. *The question of preliminary tracheotomy.*—It is, of course, an advantage if one can manage it to avoid preliminary tracheotomy, for that adds additional complications in several ways. In the first place it means another wound which must become septic; it means irritation of the trachea by the presence of the tube and the admission of cold air; and it also means very distinct interference with coughing and the power of expelling any discharges which may have entered the larynx. Where the external carotid artery is ligatured, and the bleeding is consequently very small, there is not much chance of blood entering the trachea, especially if the head is thrown well back; and in cases where the jaw is divided, and more especially where a portion is taken away, it may also be possible to avoid the risk of blood passing into the lungs. Where, however, an attempt is made to remove the tumour without division of the jaw or without ligature of the external carotid artery, and where the mass fills the throat, and more especially where it runs down towards the entrance of the larynx and on to the tongue, the necessary manipulations cannot be carried out without interfering with the breathing and exciting so much effort on the part of the patient that there is very great risk of septic discharge and blood being drawn into the lungs; and, besides, it is very necessary in these operations, in order to ensure that the disease is as thoroughly removed as possible, that there shall be no haste in their performance and that the surgeon shall be able to see exactly what he is doing. Some prefer to do the tracheotomy three or four days before the major operation, but I fail to see the advantage of this; on the contrary, it must be remembered that after three or four days the discharge from the tracheotomy wound has become more or less septic, and consequently in introducing a big tube such as Hahn's some of the pus may be pushed before it into the trachea. It is well to bear in mind that where septic pneumonia occurs by direct entrance of materials into the air passages and not as the result of a general infection it is not the entrance of pure blood which sets it up, but of blood mixed with septic discharges from the throat or of pure blood in the first instance fouled subsequently by the inhalation of the putrid materials from the wound. On looking at Table III. it will be seen that in Group II. A the mortality where tracheotomy was performed is double that where there was no tracheotomy—viz., 38 per cent. in the former case to 19 per cent. in the latter; and further, we find that of the fatal cases with tracheotomy (13 in number) 7, or 20 per cent. of the cases operated on, died from septic lung trouble, while only 1 of the fatal cases without tracheotomy (7 in number), or 2·7 per cent. of the cases operated on, died from the same cause. On these bare facts one would be inclined to regard tracheotomy as a very serious addition to the risk, but on looking into the cases we see that those where tracheotomy was performed were on the whole much more severe, and consequently accompanied with greater danger. Further, it will be found that in 6 out of the 7 tracheotomy cases which died from septic pneumonia the base of the tongue was affected, and this was also the case in the patient who died without tracheotomy. It is evident, therefore, that the seat of the disease had much to do with the fatal result, and I do not think that we can fairly attribute the septic pneumonia to the tracheotomy. At any rate, it is clear from these facts that preliminary tracheotomy is by no means an absolute safeguard against septic pneumonia, and I should be inclined to try to do without it where the disease is high up or where it is behind the tonsillar region, and where the base of the tongue or the neighbourhood of the glottis is not interfered with. Where the base of the tongue is interfered with the patient does not swallow nearly so readily as where this is not the case, and, consequently, discharges are apt to accumulate about the orifice of the larynx and so get down into the trachea after the operation. Hence in these cases I think it is well not only to perform preliminary tracheotomy, but also to go on with Hahn's tubes for some days after the operation—till, in fact, the patient has, to some extent at any rate, regained the power of easy swallowing.

[1] Lectures I. and II. were delivered on Feb. 3rd and 17th respectively, and were published in THE LANCET on Feb. 15th and 22nd.

2. *Control of the hæmorrhage.*—In most of my cases I have tied the external carotid artery so as to have the seat of the primary tumour free from bleeding, and as regards this point the result has been extremely satisfactory. In none of the cases had I to tie or clamp any vessels with the exception of one or two veins. Practically no blood was lost, and the area of the operation being more or less bloodless one could remove the disease with precision and feel pretty sure that one was cutting wide of it in all directions. The control of the bleeding in this way is of the greatest importance from the point of view, on the one hand, of the immediate danger of the operation—namely, the entrance of blood into the air passages—and, on the other, of the radical removal of the disease, but there are very serious objections to it, and I doubt if it is an advisable practice as a general rule. Working so much with aseptic wounds as one does nowadays one is apt to forget that there is such a thing as secondary hæmorrhage, and that where a wound becomes septic ligatures around large vessels very commonly ulcerate through, and then the main obstacle to hæmorrhage is the clot in the vessel. In the case of the external carotid artery little or no clot forms on the proximal side of the ligature, and, therefore, if it separates too soon there is practically no barrier and bleeding is very apt to occur. Hence it has happened that in most of the cases in which the external carotid artery has been tied severe and sometimes fatal secondary hæmorrhage has occurred from the artery. It was partly with the view of avoiding this risk that I divided the operation into two stages in Case 84, and in that instance there was no trouble whatever with the ligatured artery, and the result as regards hæmorrhage during the second operation was perfectly satisfactory. Whether this division of the operation into two stages is a good thing I shall discuss by-and-bye; it certainly gives us a means of avoiding secondary hæmorrhage from the ligatured external carotid artery, and at the same time gives us a bloodless wound. Failing this division of the operation into two stages I am inclined, much against my will, to give up the preliminary ligature of the external carotid artery in most cases, and either tie its branches or control the bleeding by temporary compression of the artery during the removal of the tumour. That, however, introduces another problem—namely, division of the lower jaw, for without that, where the disease is situated in the tonsillar region, one might have difficulty in getting proper access to the bleeding points, while I think it is an advantage if possible not to interfere with the jaw. Where, however, for any reason the jaw has been divided one can get good access to the bleeding points with previous ligature of the artery.

3. *The removal of the glands.*—The remarks made with regard to the removal of the lymphatic area in cases of breast cancer apply with equal force to these cases. It is seldom indeed that no enlarged glands can be felt, and in most instances they are of very considerable size. Whether glands are felt or not, however, the lymphatic area ought to be cleared out, and, as I have already said, one of the great advantages of the cervical region is that a very large glandular area is accessible, and not only can a large portion be cleared out at the time of the operation, but also glandular recurrences beyond the anterior triangle, if seen early, can be freely and hopefully dealt with. Most surgeons look on the presence of enlarged malignant glands in the neck—unless they are quite small and non-adherent to the vessels and only one or two in number—as a contra-indication to operation in these and in tongue and laryngeal cases, or, at any rate, as a very grave complication. For my own part, I do not at all agree with this view unless the glandular enlargement is very extensive or adherent to a variety of structures in the neck and not merely to the sheaths of the vessels, and I see no contra-indication to operation in their presence; on the contrary, I think the operation will be more thoroughly done and the patient will have a better chance of recovery and cure if enlarged glands are already present: for, in the first place, where the glands are already enlarged it is much more easy to remove the whole glandular area in one mass than it is where there are no enlarged glands to be felt; and, in the second place, the presence of enlarged glands in the anterior triangle renders it imperative to remove the neighbouring lymphatic area, especially that under the sterno-mastoid muscle, so that if glandular recurrence subsequently takes place it will in all probability be in the posterior triangle—that is to say, in a part which is easily accessible for future operation. Where there is no noticeable enlargement of the glands, on the other hand, it is a very difficult matter to take away all the glands and fat in the anterior triangle, while one is very apt in an extensive operation to leave the material under the sterno-mastoid muscle alone, and yet the glands in that situation are very early infected. Where an attempt has been made to remove this lymphatic area, and where it has not been successful and glandular recurrence subsequently takes place in the anterior triangle, we have in the second operation to deal with glands lying in scar tissue, and their subsequent satisfactory removal is a very difficult and sometimes almost impossible matter. These statements are not in any way theoretical, but are founded on considerable experience in cancer of the tongue and other regions in this neighbourhood, and also on a very extensive experience of radical operations for tuberculous cervical glands where the conditions as regards operation and recurrence are very much the same. After the preliminary tracheotomy the next step, then, in the operation is the exposure of the anterior triangle and the thorough separation of the fat and glands; and through the same wound the external carotid artery and its branches can be tied or controlled. For this purpose the best incision is one running along the anterior border of the sterno-mastoid muscle, from the mastoid process above down to the middle of the thyroid cartilage. The skin incision cannot be too free; the usual mistake that is made is to try to remove the glands through too small an opening, and we must remember that we have not only to take away the enlarged glands in the anterior triangle, but that we must also be able to lift up the sterno-mastoid muscle and remove all fat and glands behind it, especially towards the upper part. In the first instance the edge of the sterno-mastoid muscle is exposed, and the skin and fat in front of the incision are turned well forwards; in the next place I divide the deep fascia at the lower part of the incision and expose the internal jugular vein. It is very seldom, if the glands have attained any size, that they are not adherent to the sheath of the vessels, and therefore the anterior part of the sheath must be removed; indeed, where adhesion to the sheath is at all extensive (and, in fact, this is so in most cases of malignant glands) it is well to tie the internal jugular vein in two places at the lower part, divide it, and then peel it up along with the sheath and the mass of glands in front of it. In this way one can make a much better clearance of the anterior triangle than in any other; the lingual and other branches of the vein must of course be also tied, and the upper end can be readily ligatured close to its exit from the skull. As the mass is peeled forward the deep fascia is divided in front and behind, care being taken with the spinal accessory nerve, which usually divides the glandular enlargement into two parts. In none of my cases have I found it actually involved in the growth, and usually without opening the diseased glands they can be separated sufficiently to disentangle the nerve. Next, by the aid of a curved blunt instrument all the fat and glands must be detached from underneath the sterno-mastoid muscle right up to the mastoid process and well into the posterior triangle, and this material peeled off so as to leave the deep muscles clear. I consider that this is a most important thing to do, for recurrence so frequently takes place under the sterno-mastoid muscle, and it is almost impossible at a second operation to make sure of removing all the disease. With regard to the removal of the jugular vein, I may say that it need not give rise to the least anxiety; it does not add anything whatever to the danger of the operation, and I have also often had to do it in cases of operation for tuberculous glands without any harm resulting. I have never seen reason to regret having taken it away, but I have more than once regretted that I had not done so, recurrence having taken place in small glands which had been left attached to the sheath and overlooked, but which would have been removed if the vein, sheath, and everything in front of it had been taken away in the manner above described. Besides, I think that there is another great advantage in removing the vein in these pharyngeal cases, for if a septic thrombus should form in one of the small veins about the wound—as may very likely happen—it cannot get any further, and I have been much surprised at the small amount of septic disturbance in my cases.

In connexion with the removal of the glands there is one other point to which I may here refer—namely, the advisability of dividing the operation into two stages done on different days, in the first instance removing the glandular mass and a week or ten days later attacking the primary disease. I did this in two cases, and the plan has advantages as well

as disadvantages. The reasons which induced me to do it in these two cases were, in the first place and chiefly, that the patients were weakly and that both the primary disease and the glandular mass were extensive, so that I feared the shock if the whole operation were done at one time. A second reason was that Case 38 had just previously died from hæmorrhage from the external carotid artery, and I thought that the risk of this would be considerably diminished if the end of the artery, lying in an aseptic wound for some days, were to become buried in new tissue. The third possible advantage of performing the operation in two stages is that the planes of the cellular tissue in the neck would become more or less sealed by organising tissue before being exposed to the septic influences from the mouth. The last is a point on which I do not lay much stress, but the other two points are important. Against this division of the operation into two stages there is, however, one very serious objection—namely, that after removing the glands open lymphatic vessels are left which may contain or convey cancerous material to the newly made wound and thus infect it before the second operation, and this infection being microscopic could hardly be eradicated unless possibly by painting the raw surface with a strong caustic. Case 84, in which I divided the operation into two stages, is the only one in which there has been a local recurrence, and in that case the recurrence was almost immediate and yet when we had finished the operation, so far as we could judge we had cut well wide of the growth in all directions, and there was no trace of any disease to be seen. Here I am much inclined to think that there had been an infection of the wound from the divided lymphatics, and so strongly am I impressed with this risk that I would not as a rule divide the operation into two stages unless under exceptional circumstances, such as great weakness on the part of the patient, or possibly in some cases where I thought ligature of the external carotid artery would be very desirable, and if I were to do so I would thoroughly sponge out the reopened part of the old wound with undiluted carbolic acid.

4. *Access to the primary disease.*—There are many ways in which access has been obtained to the tonsillar region, but it is unnecessary for us to discuss them all. The essential point centres round the question as to whether it is necessary or not to divide the lower jaw; and as regards this we have again two points for consideration—namely, whether it is sufficient to divide the lower jaw as in von Langenbeck's operation, or whether it is not better to remove the ascending ramus altogether as in Mikulicz's plan. Division of the lower jaw or removal of the ascending ramus are, of course, procedures which it is desirable to avoid if possible. In the first place, the division of the bone must add considerably to the septic risk by leaving a compound fracture in a septic wound, and it also must add to the shock. At first sight this statement seems to be in opposition to the facts as shown by Table III., where the mortality after division of the jaw is 26 per cent. as compared with 35 per cent. where the jaw was not divided; but in the latter case the numbers are a good deal smaller, and four of the seven deaths were due to hæmorrhage, other two also occurred in connexion with ligature of arteries, and the seventh from post-operative mania, so that in none could the retention of the lower jaw be held responsible for the result. In the second place, the divided ends of the bone have in several instances failed to unite and a false joint has been left. Not that this is always a disadvantage, for where the disease involves the mucous membrane in front of the fauces, between the upper and lower jaws, the subsequent contraction of the wound is very likely to lead to more or less closure of the jaws, which, however, does not cause any very great inconvenience if there is a false joint in front. And, lastly, necrosis of the divided ends of the bone has more than once occurred. On the other hand, there are great advantages to be gained by division of the jaw, and in some cases it is absolutely necessary. When the jaw is divided in front of the masseter and the two parts pulled aside, especially after division of the posterior belly of the digastric and the stylo-hyoid muscles and with a skin incision running from the angle of the mouth to the upper part of the oblique incision in the anterior triangle, the whole region of the tonsil and side of the pharynx is completely exposed to view, and can be dealt with as precisely as if one were operating on a cutaneous surface; and if this is done there is of course no necessity for ligature of the external carotid artery, the bleeding points being easily secured. Where the disease involves the periosteum over the jaw, necessitating removal of a portion of it or of the ascending ramus, the view obtained is still more perfect. As regards the removal of the ascending ramus of the jaw, if the angle is also taken away the functional result is bad, the jaw being pulled over to that side and the lower teeth no longer meeting the upper, consequently the patient cannot masticate solid food. Mikulicz has overcome this difficulty to some extent by dividing the ascending ramus above the angle and only removing that part, and he states that in his cases the functional result is excellent, while a good view is obtained and there is no trouble from closure of the jaws as the result of contraction of the wound. With regard to this question of dividing the jaw I would, however, point out that a marked increase in the space is obtained simply by dividing the posterior belly of the digastric and stylo-hyoid muscles. After this is done the jaw and the larynx can be pulled forward on that side to a very considerable degree. As I have already said, however, no two cases resemble each other and the methods must be varied in each instance. In my opinion the only constant incision is the oblique one, in order to get access to the glands and to free the vessels so that they can be pulled out of the way when the primary mass is being dealt with. Any further incisions that are made will vary according to the necessities of the case. As regards sub-hyoid pharyngotomy—that is to say, division of the thyro-hyoid membrane close to the hyoid bone—I do not think that there is any particular advantage in that in most cases. As I have already pointed out, one ought to open the anterior triangle freely in order to remove the glands in all instances, and one of the chief objects of the sub-hyoid pharyngotomy as opposed to lateral pharyngotomy is to save the superior laryngeal nerve. According to some writers this cannot be done where the sub-hyoid opening has to be extensive, though that is denied by others who have succeeded in avoiding a division of these nerves, but, as Case 112 shows, this nerve can also be spared in the lateral operation, and I believe one can get better access to the region of the epiglottis and the side of the pharynx and base of tongue by the lateral than by the sub-hyoid method. In my case, by an incision along the hyoid bone in addition to the usual oblique incision and removal of the great cornu, I was able to take away the whole epiglottis and the back part of the tongue quite satisfactorily. As to the method of removing these growths it must be done by scissors or the knife and they must be taken away in one piece. I do not think the result is at all satisfactory where the galvano-cautery, or the thermo-cautery, or the écraseur is employed. It is of the utmost importance to be able to examine the cut surface in its natural state so as to be quite sure that all the disease has been removed, and this cannot be at all made out if we have a burnt or a crushed part to look at. Besides, if a burnt surface is left a slough must separate, and bleeding is then very apt to occur, and in several of the cases in the accompanying list this has actually taken place.

5. *Treatment of the wounds.*—These cases are not, of course, amenable to aseptic treatment, but that is no reason why one should not be as careful as possible not to introduce any fresh septic material, and I am, therefore, as careful about the disinfection of the skin, instruments, hands, &c., as if the wound could be kept aseptic, and I have been surprised at the remarkable freedom from any general or marked local sepsis in the majority of my cases. It is very much the fashion to rub in iodoform and to plug these wounds with iodoform gauze, but I am not a great believer in the virtues of iodoform as an antiseptic and cannot attribute the absence of sepsis to its employment. Sir Joseph Lister recommends the application of a 10 per cent. watery solution of chloride of zinc to the wound immediately after the operation, and no doubt it is useful. I believe, however, that the best safeguards against septic troubles are the avoidance of fresh infection at the time of the operation, the free drainage of the cavity, and possibly, as I have already hinted, to some extent the removal of the internal jugular vein. As a preparation for these operations it is most important to see that the teeth are repeatedly and thoroughly scrubbed and to order the patient to use a frequent gargle of pretty strong Condy's fluid or sanitas. After the operation I have usually packed the wound for twenty-four hours with cyanide gauze powdered with iodoform, so as to stop the oozing of the blood and to prevent the surface becoming covered with clots which would decompose. This is withdrawn on the day after the

operation and is not reintroduced, but as soon as the patient can manage it he is instructed to frequently fill his mouth with weak sanitas or Condy's fluid and let it run out of the tube. After the operation the skin incisions are stitched up and a large drainage-tube is fixed at the most dependent part of the wound and passing freely into the pharynx. This tube is left untouched for two days, and is afterwards taken out once or twice a day and washed in 1 to 20 carbolic acid before being reintroduced. I generally keep it in for about ten days altogether. Free drainage of the wound is a point of paramount importance. I think that the remarkably smooth progress of the naso-pharyngeal cases was due to the ease with which the discharges were able to flow away from the wound; and in these, as well as in the other cases where the larynx is not touched, I arrange very soon for the patient to be propped up more or less completely in a sitting posture. As an external dressing I use cyanide gauze, which is as easily employed as anything else and which has the advantage of arresting the decomposition which is going on in the discharges which pass into it. I have already referred to the tracheotomy tube and need not say anything further about it. The feeding of the patient is, of course, a point of great importance. Difficulty in swallowing naturally varies in different cases according to the extent of the operation and the parts removed. In severe cases, where a great part of the pharynx has been taken away, the stomach-tube must, of course, be used, and I generally leave one in at the time of the operation for three or four days and then pass it whenever necessary, taking care that it glides along the healthy side of the pharynx and does not impinge on the granulating surface. In one of the cases (No. 26) the patient began to swallow about the second day, using a plan suggested by Dr. Semon—namely, hanging the head over the side of the bed with the sound side downwards and then taking the fluid into the mouth. As a result it ran down the sound side and the patient was able very soon to manage quite well. In other cases we have had to use the stomach-tube for a considerable time. In Case 38, where a portion of the tongue, tonsil, and pharynx were taken away, one of the most extensive of the operations, the patient began to try to swallow about the tenth day, but he was not able to swallow a sufficient quantity to dispense with the feeding-tube till about three weeks after the operation. Much depends also on the closure of the sinus left by the drainage-tube, but the finger placed over that while swallowing is going on is usually sufficient to prevent the fluid running out. In the case where the epiglottis and the base of the tongue were removed, it was seven days before the patient could swallow at all, and between three and four weeks before he could swallow comfortably. Israel states that in the epiglottis operations the rapidity with which the power of swallowing is regained is much expedited by stitching back the tongue to the mucous membrane over the lower part of the epiglottis, which he preserves, if possible. I did not do this in my case as I had to remove the epiglottis completely, and I think that in few instances of carcinoma of the epiglottis can it be advisable to leave any of the mucous membrane behind. In all of these cases I have combined rectal alimentation with the other for some time.

6. *Results.*—I must now say a few words about the results as shown in Table III. This table has been pretty thoroughly analysed at the end, but some explanation is needed, as the bare figures do not at all convey an accurate impression of the results. We must also consider the results in the three great groups separately. In Group I. we have operations of varying severity, some quite small but the majority of considerable extent—some indeed, such as my case of sarcoma of the tonsil (No. 22), very extensive; but the great point of distinction between this group and the next is that the wound in the throat did not communicate with a wound in the neck. Group II. comprises the cases which essentially belong to this subject, and in it are included all the cases where the wound in the throat communicated with a wound in the neck. This group I have broken up into three divisions according to the seat of the disease—viz., (1) the upper part of the pharynx with the tonsillar region as the central point; (2) disease at a lower level, in the pharynx proper; and (3) cancer of the epiglottis. In Group III. we have to do with a very much more serious condition where the disease is not confined to the pharanx, but has spread on to and involved the larynx, or *vice versâ*. I shall in the first place consider the question of mortality, and then the results as regards cure or benefit, and as regards function.

a. Mortality.—In Group I. there were 23 cases with 2 deaths, or 8·6 per cent. mortality, one death being from pyæmia (No. 13), and one from exhaustion after hæmorrhages and recurrence of the disease (No. 9). As regards risk to life, therefore, cases of this class are quite satisfactory. In Group II. also the mortality is less than one would expect considering the great severity and extent of these operations, the total result being 91 cases with 27 deaths, or a mortality of 29 per cent. Of the divisions of this group the highest mortality is found in B, where the disease affected the pharynx at a lower level than the tonsillar region, these cases numbering 15 with 6 deaths, or 40 per cent. mortality. The smallest mortality is in Division C, cases of removal of the epiglottis, where there was 1 death in 6 cases, or a mortality of 13 3 per cent. In the main division of this group A, the tonsillar cases, there were 20 deaths in 70 cases, or a mortality of 28 per cent. Considering the nature of the operations this cannot be regarded as an excessive mortality, but if we look into the causes of death we shall find that some of these should be avoidable in future. Thus 6 of the 20 cases died from hæmorrhage (Nos. 24, 25, 38, 41, 51, and 53), 4 of these after ligature of the external carotid artery, 1 of the common carotid, and 1 from hemiplegia after ligature of the common carotid for hæmorrhage; a seventh case also died from hemiplegia from ligature of the internal carotid at the time of the operation. In my case also (No. 40) the ligature of the carotid had much to do with the patient's death, and possibly this may also have been the case in No. 39. Thus in 8 or 9 of the 20 deaths the cause lay in interference with the large vessels. This is a valuable lesson, and it seems to me that in this respect the mortality in future ought to be distinctly reducible. Of the 20 deaths, 8 or 9 had to do with septic trouble, chiefly septic pneumonia. How far we can reduce this cause of death in future it is difficult to say; preliminary tracheotomy is not, as I have already pointed out, an absolute safeguard against this accident. In the total of 91 cases belonging to Group II., at least 15 deaths were due to septic causes, equal to 16 4 per cent. Although this occurrence is, I fear, in some cases unavoidable, still I think much can be done to prevent it, and I look forward to a reduction of the mortality from this cause also. On the whole, therefore, I believe that if the lessons derived from a study of the work done in this department of surgery are borne in mind there will be a marked reduction of the mortality in future. One difficulty in improving the results, both as regards mortality and also as regards the eradication of the disease, has been the limited experience of individual surgeons owing to the small number of cases operated on and to the hopeless view which is generally taken of them by those who see them first. I was much struck with an expression used in one paper with regard to Billroth's great mortality after pylorectomy that it represented the "Lehrgeld" or educational expenses of the operation. In these pharyngeal operations, individual surgeons have had so little opportunity of operating that their efforts may be looked on as altogether "Lehrgeld," and we have not yet got beyond the educational stage. I hope that the lessons derived from a study of this table of cases which I have collected will enable us in future to pass the educational period; and in that case it is certain that the mortality will fall, and the success will increase in these as it has done in other operations. Even with the present mortality, however, these operations are fully justified, and occupy as good a position as many others which are looked on as perfectly legitimate procedures. When we come to Group III. we find a much more serious state of matters, for here of 58 cases 32 died, giving a mortality of 55 per cent. Of these the chief cause of death was septic pneumonia, which led to 19 of the 32 deaths—that is to say, of the total number operated on 32·7 per cent. died from septic pneumonia. How far this might be reducible in future is a difficult question, but I think considerable improvement would follow from freeing the divided end of the trachea and stitching the skin all round it so as to isolate it altogether from the pharynx.

b. Ultimate results.—In the whole list of cases there are only 4 which came under the class cured—that is, where three years have elapsed without recurrence, but more may have now passed the limit, for as a rule the cases have been published soon after the operation and there are no further notes of them. Thus it happens that of the 114 cases in the first two groups, no fewer than 24—or, including operations after recurrences, 30—are marked H?—that is to say, they recovered from the operation, but the further history, at any rate after six months, is not recorded. Some of these may have been cured, or at any rate a considerable time

may have elapsed before recurrence. Similarly 14—or, including operations after recurrences, 17—are marked H—that is to say, a considerable period had elapsed since the operation without recurrence. It is therefore very difficult to arrive at definite conclusions as to the ultimate result in these operations, but I have attempted to do this by estimating the cases which were benefited and those which were not, the estimate in both instances, especially in those benefited, showing, however, the worst result. Under those "not benefited" I have placed those which died or recurred early; under "benefited" those which recurred late or which remained well at the last note, more than six months after the operation. Those marked H? do not come under either group, but most probably, if the further result were known, they would decidedly increase the number of those "benefited." Hence, as I say, the latter class is certainly considerably under-estimated, especially in Group II. Letting it stand so, however, we find, as summarised at the end of the table, that in Group I. 30 per cent. were not benefited, 52 per cent. were benefited, and 18 per cent. remain which we cannot classify; in Group II. 54 per cent. were not benefited and 17 per cent. were, while as many as 29 per cent. have to be left out of consideration; in Group III. 81 per cent. were not benefited and 12 per cent. were, while only 7 per cent. are unclassified. As I have already said, I feel sure that with this accumulated experience before us the mortality can be considerably reduced, certainly in the second group, and possibly also in the third; while there is undoubtedly much scope for greater care and thoroughness in operating, more especially as regards the glands, some of the operations, as will be evident, having been very imperfectly performed. Hence I look forward, not only to less mortality, but also to distinct improvement as regards recurrence. As regards Group I. there can be no question as to the advantage of operation, but with regard to it I would point out that several of the cases would have had a much better chance had the operation been more extensive and had they thus come into Group II.; and in several of those benefited the result was due more to good luck than to good management. I hope the favourable results shown in this group will not induce surgeons to treat cases in this way which ought to be more thoroughly dealt with. As regards Group II., I think the result is encouraging, for a mortality of 29 per cent. and a mortality which is evidently reducible is not such as to deter us from giving these patients a chance. Here the present results are that 54 per cent. were not benefited, but that is not more than in many statistics of breast cancer and not so much as in rectal and intestinal cancer, which are generally recognised as suitable cases for operation. Of these cases the most unfavourable are those where the disease has spread on to the tongue, and it is in these instances that most cases of septic pneumonia have occurred, the numbers being 36 cases where the tongue was involved, with 12 deaths or 33 per cent., of which 7 were from septic pneumonia; 4 of these 12 deaths were, however, from hæmorrhage and were probably avoidable. It is where the tongue is extensively involved in addition to the pharyngeal disease that we come, I think, to the limits of these operations. I do not feel, however, able at the present time to lay down definite limits beyond which it is not advisable to proceed. So much depends on the experience and the personal equation of the individual operator. Almost all my cases have been condemned by other surgeons as quite inoperable, and I believe all would have been so condemned had they been seen, and yet not only have three done well, but even two out of the three who died were very nearly successes, and instead of discouraging us give us hope for the future. When, however, we come to Group III. we have a very different state of matters, for not only is the mortality very high (55 per cent.), but the proportion of those who cannot be reckoned as having got any benefit is very large (81 per cent.). I think, therefore, that in most of these cases the patients will be better off if left alone, at the same time in a small proportion (12 per cent.) benefit was obtained, and therefore I would not necessarily exclude all these cases from operation, but would leave it to the surgeon to judge in the individual case whether an operation is feasible or not. As to the functional result in the first two groups, it is for the most part quite satisfactory. It is remarkable how much one can take away in the tonsillar region without causing any great contraction or inconvenience; on the other hand, where pharynx and larynx are both removed life is hardly worth living except in rare instances—certainly it is not in the case of a poor patient who would have to spend the remainder of his days in the workhouse.

3. INTESTINAL CANCER.

Time fails me to go into the subject of intestinal cancer, and the points I wish to bring out will be sufficiently evident if I confine my remarks to the rectum. Up till now I have been speaking of cancer in parts where practically the only object in operation was with the view of curing the disease, but here we have a region where, on the one hand the conditions as regards cure are not so favourable, while on the other alternative procedures have to be considered which, while they do not aim at cure often prolong life markedly and, what is more, remove a great deal of the agony of the disease. In cases of intestinal cancer we have to do with a disease which, as elsewhere, varies much in malignancy, but is, on the whole, less malignant than cancer in the situations which we have been considering. More especially is this true as regards the glandular and metastatic deposits, in which the disease sometimes progresses very slowly, and if only the risks attending the situation of the primary disease can be avoided the patient may in the less malignant forms live for a very considerable time. In accordance with this lesser malignancy recurrences after operation are not uncommonly late, a considerable proportion taking place after several years. Thus, in Czerny's statistics 10 were well after three years, but 4 of these (40 per cent.) subsequently showed disease. Metastases are also late in occurring, and as regards the latter point Iversen states that in 47 post-mortem examinations of long-standing cancer of the rectum (he does not say of how long standing) he found 21 in which there were no metastases. As regards the hope of cure, however, the glandular area is not nearly so accessible as in the breast or the throat, and, therefore, when the disease is of the rapidly advancing form there is little chance of getting beyond it by operation. Hence the radical operation cannot be so thorough, and were it not for the fact just mentioned as to the lesser malignancy of the disease the chances of benefit by removal of the disease would be very slight. Further, the operations necessary for the removal of the primary disease, more especially where it is high up, are accompanied by a considerable mortality. And lastly, the functional result after operation often leaves much to be desired, both as regards continence on the one hand and stricture with its troubles on the other. On the contrary, we have in colotomy an alternative procedure which removes the immediate risk to life (obstruction) and thus prolongs life often very considerably while it also rids the patient of much of his pain and discomfort by relieving the impending obstruction and by getting rid of the inflammatory condition at the seat of disease which not only adds much to the patient's discomfort but also no doubt increases the rapidity of growth of the disease. Thus we have in these cases a choice of procedures, and it is no longer as in the former instances a question of a radical operation or nothing; and further, as the palliative procedure offers much relief, and as only a small proportion of radical operations give any hope of permanent benefit, there is not the same urgent need for the radical operation. Hence the question of selection of cases and our mode of advising the patient is much altered. We shall find that in a large proportion of cases the hope of benefit from a radical operation is so very slight that we can without hesitation exclude them from the radical procedure and at the same time help them much by colotomy; and thus the cases in which the choice of an operation has to be left to the patient are comparatively few. We can in most instances say definitely that the case is suitable for the one or the other procedure, there are only a few on the border line that we need leave to the patient to decide.

I cannot enter here into the question of the operative procedures, but I may say that while the perineal operation is suitable in some cases, in the majority it is best to employ one or other of the methods which give good access to the part from behind, such as Kraske's sacral operation, or one of the modifications of it. Where the disease is situated pretty high up, the favourite plan is, after removal of the affected portion, to try to unite the upper and the lower part and obtain again continuity of the canal. In some few cases this has succeeded very well, and the patient has had more or less perfect control over the bowels, but in most instances there has been incontinence more or less complete; in some fistulæ have been present in addition, and in many an amount of stricture has resulted which has been a source of great suffering to the patient. In some cases, also, where there has been much

tension, the bowel has given way and extravasation of fæces has occurred and led to fatal cellulitis or peritonitis. If there is incontinence in these cases the anus is a very difficult situation to keep clean or to fit with any suitable apparatus, hence where there is such tension I think it is much better to bring the end of the rectum out in the sacral region, where it can be much more easily kept clean, and in that case one should remove the anal portion altogether so as not to leave a canal to infect the deeper part of the wound. In the last case on which I operated I removed the whole of the lower part of the rectum and applied a ligature around the bowel just above where it was cut off, brought this ligatured portion out in the sacral region, stitched it to the skin, brought together the wound, and left the ligature around the bowel, and in this way for four days we had an aseptic wound. It was not until the end of the fourth day that the ligature cut through and a communication formed with the bowel; and though a small part of the wound in the neighbourhood opened up and suppurated, the greater portion, and especially all the deeper part, remained healed. Where the anus is brought out in this situation some advantage as regards continence is gained by acting on Gersuny's suggestion to rotate the bowel through an angle of 90°. Let us contrast the results after colotomy with those after excision. At one time colotomy was of itself an operation with a considerable mortality, and when performed during an attack of obstruction it is so still. At the present time, however, especially as regards inguinal colotomy, the mortality is quite insignificant when performed apart from obstruction, probably not more than 2 or 3 per cent., if indeed so much. We may, in fact, disregard the primary mortality of colotomy and study the results as regards prolongation of life. There are not many good statistics on this point. Erckerlen's old statistics give 45 cases surviving the operation, of whom 22, or 49 per cent., died within a year and 23, or 51 per cent., lived more than a year, 6, or 13 per cent., living over two years. Bryant's statistics are much more favourable. Of 70 cases operated on without obstruction, only 18, or 23 per cent., died within the year; 36, or 34 per cent., died within twelve and twenty-four months; 16, or 22 per cent., died between twenty-four and thirty-six months; and 12, or 17 per cent., were still alive when he wrote. Of 55 which survived the operation for obstruction, 18, or 32 per cent., died in the first year; 19, or 34 per cent., in the second; 12, or 21 per cent., in the third year; and 6 were still alive, 3 of them having lived from two and a half to five years after the operation and one of them being alive after six years. Taking the whole 125 cases together, we find that 36, or 28 per cent., died during the first year; 43, or 34 per cent., died during the second year; 28, or 22·4 per cent., died later than two years; and 18 were still alive when he published, some of them also having lived more than two years. These results are, however, remarkably favourable, much more so than any other published estimate. The explanation may, in part at any rate, be that at the present time in a good many of these cases the disease would have been excised, and only the more advanced and malignant cases would have been subjected to colotomy. At the present time, therefore, cases treated by colotomy do not live on an average nearly so long, most of them dying during the first and second year. In a case unsuitable for the radical operation, however, I performed colotomy nearly five years ago, and the patient is still alive, although in the interval a small communication has formed with his urethra.

Let us turn now to the results of the radical operation. The mortality varies considerably between the perineal and sacral operations, being naturally higher for the latter. König's total mortality is 38 per cent., Billroth's 34 per cent., Kocher's 28 per cent., Albert's 18 per cent., Iversen's estimate as regards the Kraske operation 25 per cent., and Czerny's with the perineal operation 5·4 per cent, with the sacral operation 19·4 per cent. So far as one can judge from a large number of reports, the mortality after the perineal operation seems to be about 8 per cent., after the sacral operation from 18 per cent. to 20 per cent., but the results vary much in the hands of different surgeons, probably in accordance with the selection of cases and the after-treatment of the wounds, and in both instances it can in all likelihood be somewhat reduced in the future. As matters stand, however, we have to contrast colotomy in which the mortality is practically *nil* with excision where the mortality varies from 5 to 20 per cent.

Let us next consider the results, and I shall not weary you with elaborate statistics, but take as examples three papers in which the cases are detailed, and which, therefore, I have been able to control and work out myself. I had intended to inflict another table on you, and my friend, Dr. Macan, has spent a good deal of time in hunting up results for me, but as I found that I had no time to go at all fully into the matter, I gave up the project. 1. Kocher's statistics as given by Arndt show 35 cases of radical operation with 10 deaths, a mortality of 28 per cent. Excluding the last three years, as we did in the breast, we have 25 cases with 7 deaths (28 per cent.), 11 recurrences (44 per cent.), and 7 without recurrence (28 per cent.). In 4 of the recurrent cases, however, marked benefit was obtained, for two were again operated on and remained well three and eight years subsequently, while in 2 the recurrences were very late, three and five years respectively. The 7 which did not recur had been free for 3½, 5½, 6½, 8½, 13¼, 16½, and 16½ years. To summarise this result 14, or 56 per cent. did not benefit by the operation, while 11, or 44 per cent., did benefit to a marked degree. 2. Take Czerny's statistics as given by Heuck and Loewinsohn (I do not include Schmidt's report, because most of his cases are too recent). These statistics do not include any sacral operations. Forty-one cases, 3 deaths (7 per cent.), 21 early recurrences (51 per cent.), 8 late recurrences from seventeen months up to five and a half years (16 per cent.), 4 well over six years (9 per cent.), and 2 died within the first year without recurrence. Thus there was no benefit in 24 cases (58 per cent.), and marked benefit in 14 (34 per cent.) 3. König's statistics as given by Hildebrand represent perineal and sacral operations, and comprise 54 cases with 21 deaths (38 per cent.) Leaving out the last three years, we have 34 cases with 17 deaths (50 per cent.), 6 early recurrences (17 per cent.), 5 late recurrences (12 per cent.), three remained well for from three and three-quarter to five years (8 per cent.), and the remainder cannot be classified. The total is 23 not benefited (67 per cent.) and 8 benefited (23 per cent.). Of 5 apparently well for three years, 2 subsequently recurred (40 per cent.). We may say, therefore, that of these 100 cases 61 were no better off than if they had been left alone and not so well off on the whole as if they had had colotomy done, for 27 of them died at once. These results are not in any way better than—indeed, not so good as—in the pharynx operations. On the other hand, 33 gained advantage, and most of them very marked advantage, from the radical operation, much greater than colotomy could have given. From this we see that of every 100 cases subjected to the radical operation in Germany only about 35 are really likely to be benefited by the operation, and 60 would be better off with colotomy—for in Germany the radical operation is carried to an extreme extent, adhesion to bladder and prostate not even forming a contraindication; indeed, Genzmer goes so far as to advocate the operation, even though there are already metastatic deposits in the liver. As, even in Germany, from 20 per cent. to 25 per cent. of the cases applying for relief are not deemed fit for the radical operation, we may say that, taking all patients together as they come to the surgeon, not more than 20 per cent. will be benefited by the radical operation; the remainder will do better with colotomy. If we study the successful cases it appears that in the great majority of instances where real benefit was derived from the operation the disease was low down and was not adherent to surrounding structures; the cases of success as regards prolonged freedom from recurrence where the disease was high up or adherent to surrounding structures such as the prostate are quite few in number. In this matter I quite agree with the tendency of the English school of surgery as opposed to the German, and would exclude from the radical operation cases of rapid growth, cases where the disease forms large masses in the intestine or is deeply ulcerated, cases where it has passed through the wall of the rectum and invaded surrounding parts as indicated by fixity, and rapidly growing tumours high up even though not yet fixed. In none of these is there any real prospect of cure or of marked prolongation of life. In the fixed tumours local recurrence is almost certain to take place early, and the last condition of the patient will be worse than the first. Where the tumour is rapidly growing glandular infection is widespread, and the chances of getting beyond the disease are very remote, while, on account of the rapidity of growth, the glandular disease and the metastatic deposits will soon end the life of the patient. In none of these cases is it worth while for the patient to run a considerable risk, for it is just in these cases that the mortality is highest, while in colotomy we have a means of relieving the patient's sufferings and of giving him as long a period of life with practically no risk.

TABLE III.—OPERATIONS FOR MALIGNANT DISEASE OF THE PHARYNX COLLECTED, AS FAR AS POSSIBLE, UP TO THE END OF 1895.

GROUP I.—*Cases where the Disease was Removed from the Mouth, with or without Splitting the Cheek and with or without Tracheotomy, where, in fact, there was no Wound in the Neck communicating with the Mouth.*

a. Carcinoma.

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
1	Newman (1890): Malignant Diseases of Throat and Nose.	M. 65	Epithelioma of left tonsil, uvula, and posterior pillar of fauces, noticed 4 weeks. No glands.	Removed through mouth with thermo-cautery under cocaine.	Recovered	Still remains well, 6 years later; therefore cured. (Private communication.)
2	Wolff (1889): Berliner Klinische Wochenschrift, 1891, p. 401.	M. 45	Carcinoma of left tonsil and neighbouring part of velum and pharynx.	Head dependent. Removed from mouth. Half soft palate removed; tumour cut round and peeled out with finger.	Recovered	Well, 1½ years later.
3	Körte (1885): Referred to by Wolff as above.	M. 51	Carcinoma of left tonsil and soft palate.	Removed with head dependent.	Recovered	3 months later gland removed from right side of neck and 7 months later one from left side. Remained well till 5 years and four months after operation, when recurrence in glands above left clavicle. No local recurrence.
4	McIntyre (1891): Journal of Laryngology, 1893.	M. 60	Epithelioma of left tonsil and lower part of anterior pillar of fauces.	Removed with scissors through mouth.	Recovered	No recurrence 21 months later.
5	Watson Cheyne (1892).	M. 52	Epithelioma of left anterior pillar of the fauces spreading on to tonsil and towards tongue.	Clipped out	Recovered	Patient cannot be traced.
6	Newman (1891): Malignant Diseases of Throat and Nose.	M. 51	Epithelioma of tonsil and soft palate. No glands.	Tracheotomy, and 5 days later removal with electro-cautery through mouth.	Recovered	Still remains well, therefore cured (5 years). (Private communication.)
7	Lauenstein: Deutsche Medicinische Wochenschrift, 1888.	M. 65	Carcinoma of soft palate and upper part of anterior pillar of fauces.	Tracheotomy. Right cheek split, soft palate and anterior pillar of fauces removed.	Recovered. Cannula removed next day.	No further history.
8	MacEwen (1878): Quoted by Newman.	M. 55	Epithelioma of right tonsil, side of pharynx, and tongue.	Incision from angle of mouth to angle of lower jaw and tumour removed. No further details.	Recovered	Well, 12 years later. Cured.
9	Kendal Franks: THE LANCET, June 28th, 1884.	M. 45	Ulcerating carcinoma of left tonsil, soft palate, and base of tongue, with enlarged glands.	Cheek split. Tongue removed by galvano-cautery and then soft palate and tonsil by thermo-cautery. Gland removed later.	Hæmorrhage on 8th and 14th days. Death from exhaustion after two months. Recurrence in floor of mouth.	
10	Kocher (1886): Langenbeck's Archiv, vol. xlv.	M. 64	Carcinoma of the mucous membrane between the jaws, spreading on to soft palate, anterior pillar of fauces, and side of tongue. No glands	Removal, after splitting cheek, without performing tracheotomy or dividing jaw.	Recovered	Gland found and removed a fortnight later. No further history.
11	Weeks (1889): Transactions of the American Surgical Association, 1892.	M. 70	Epithelioma (?) of side of tongue, fauces, and left tonsil.	Cheek split and affected parts clipped out.	Recovered	Died a year later. No cause given. (? Recurrence.)
12	Watson (1894): New York Medical Journal, 1894.	F. 53	Epithelioma (?) of left tonsil and anterior pillar of fauces. Enlarged gland.	Freely removed by cautery knife. (? Gland.)	Recovered	Well, 3 months later.
13	Velpeau: Quoted from Stappert's Thesis, Das Carcinom der Tonsille, 1889.	M. 68	Epithelioma of tonsil and pharynx.	Ligature laid round common carotid, mouth opened, soft palate split, and tumour got out.	Died in 17 days from pyæmia.	

β Sarcoma.

14	McIntyre (1892): Journal of Laryngology, 1893.	F. 58	Sarcoma of left tonsil, anterior and posterior pillars of fauces.	Clipped out	Recovered	Recurrence in right tonsil 6 months later. No further operation.
15	Newman (1884): Malignant Diseases of the Throat and Nose.	F. 57	Spindle celled sarcoma of left tonsil. No glands.	Tracheotomy; removed through mouth piecemeal.	Recovered	Remained well 5 years; then developed round-celled sarcoma in right tonsil, and rapidly died.
16	Lediard (1887): THE LANCET, Nov. 23rd, 1889.	M. 62	Lympho-sarcoma of right tonsil.	Tracheotomy; tumour clipped out through mouth.	Recovered	Nine months later glandular recurrence removed. Well, a year later.

TABLE III.—GROUP I.—*Continued.*

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
17	Michaux: Bulletins de l'Académie Médicale Royale de Belgique, 1886-87. Quoted by Bosworth: Diseases of Throat and Nose.	M. 45	Tumour (? sarcoma) involving left half of soft palate, and extending to pharynx and nares. Observed for 4 months.	Excised through mouth. Recurred in 1 month, and then cheek split and growth with part of hard palate removed.	Recovered	Recurred in 2 months. Inoperable.
18	Conner (1889): New York Medical Record, 1889.	M. 40	Sarcoma of tonsil size of man's fist.	Cheek split and tumour enucleated.	Recovered	Recurred in 2 months, and died in 4 months after operation.
19	O'Hara: Australian Medical Journal, 1892.	M. ?	Sarcoma of left tonsil involving left half of soft palate and root of tongue. No glands.	Tracheotomy. Cheek split and tonsil pulled out and clipped away. Surrounding tissue destroyed with thermo-cautery.	Recovered	Remained well 4 years; then died, sarcoma of lung. No local recurrence.
20	Barker: Pathological Society Transactions, 1886.	F. 74	Lympho-sarcoma of right tonsil and gland.	Removed gland. Cut around tonsil with thermo-cautery and shelled it out. Removed nodule from tongue.	Recovered	3 weeks later second nodule in tongue removed. Rapid recurrence in glands, and died 6 months after operation.
21	Croly (1886): Journal of Laryngology, 1887.	M. 17	Round-celled sarcoma of left tonsil involving soft palate. Gland enlarged.	Growth excised through mouth and gland removed.	Recovered	Rapid recurrence in palate and neck, and death in 6 months.
22	Watson Cheyne (12/9/94): See Lecture II.	M. 43	Round-celled sarcoma of right tonsil, side of pharynx, soft palate, and lower part of naso-pharynx; glands.	Glands removed and external carotid tied; cheek split and disease removed partly from inside and partly from outside.	Recovered	Mass of glands removed 8 months later. Well 16 months after first operation. No local recurrence.
23	Gardner: Australian Medical Journal, 1892.	M. 62	Sarcoma of left tonsil, pillars of fauces, and up to soft palate; ulceration in central part.	Laryngotomy. Pharynx plugged, cheek incised from angle of mouth to masseter. Growth cut away.	Recovered	14 months later growth in axilla, but no local return.

GROUP II.—*Cases of Disease in the Pharynx where the internal wound communicated with an incision in the neck.*

A.—Where the disease was situated in, or in the vicinity of, the tonsils and extended thence to the neighbouring parts.

1.—Where the jaw was not divided. *a.*—No tracheotomy.

a. Carcinoma.

24	Polaillon: Gazette Médicale de Paris, 1885.	M. 37	Epithelioma of right tonsil, slightly on soft palate and base of tongue.	Ligature of lingual and right common carotid. Incision from angle of mouth to wound. Lateral pharyngotomy. Removal by galvano-cautery and thermo-cautery of base of tongue, tonsil, &c.	Died. Bleeding 1½ months after operation, and common carotid tied. Death in a few hours. There was local recurrence. Paralysis followed ligature of common carotid.	
25	Polaillon (1883): Gazette Médicale de Paris, 1886.	M. 65	Epithelioma of left tonsil, spreading on to soft palate and base of tongue.	Ligature of external carotid. Incision from angle of mouth to incision in neck. Removal by galvano- and thermo-cautery.	Died. Hæmorrhage on 14th day, and again on 16th, from external carotid; latter fatal.	
26	Watson Cheyne (13/10/94): See Lecture II.	M. 55	Epithelioma of left tonsil, anterior pillar of fauces, and soft palate, very large mass of glands extending under sterno-mastoid, and adherent to vessels.	Removal of glands with internal jugular vein. Ligature of external carotid. Lateral pharyngotomy. Removal of mass, partly from inside and partly from outside.	Recovered	Well, 15 months later.
27	Kocher (1881): Langenbeck's Archiv, vol. xiv.	M. 49	Carcinoma of right tonsil, soft palate, anterior pillar of fauces and side of tongue.	Cheek split and tumour removed by external and internal incisions.	Recovered	Recurred in a little over a year.
28	Thorburn (1889): Brit. Med. Jour., 1890.	? ?	Epithelioma of right tonsil and soft palate, of both alveoli and base of tongue. Gland in neck.	Removed by pharyngotomy.	Recovered	Recurred in palate 6 weeks later. Removal. Well 2½ months later.
29	Fowler: Journal of Laryngology, 1888.	F. 67	Carcinoma of left tonsil. Glands in neck.	Tied lingual and facial arteries. Opened pharynx by cautery, and removed tonsil. Glands shaved off carotid.	Recovered	Died, 8 months later, of gastric ulcer. Glandular recurrence in both parotid regions.

β. Sarcoma.

30	Wheeler: Dublin Journal, 1884.	F. ?	Spindle-celled sarcoma in right sinus pyriformis starting from stylo-hyoid ligament.	Lateral pharyngotomy. Removal of tumour piecemeal. No special arrangements for exposing the tumour.	Recovered	Recurred locally in 3 months. Further attempt at removal failed. Death from exhaustion.

TABLE III.—GROUP II.—*Continued.*

No. of case	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
31	Cheever: Boston Medical and Surgical Journal, 1869, p. 54.	M. 34	Sarcoma of tonsil (left), ulcerated. Glands enlarged.	Incision along border of jaw. Removal of glands. Division of digastric, stylo-hyoid and stylo-glossus. Pharynx opened. Tumour removed.	Recovered after 31 days.	
32	Homans (1890): THE LANCET, Aug. 23th, 1891.	F. 59	Round-celled sarcoma of right tonsil.	Incision outside; tonsil clipped out from mouth.	Recovered	Well, 5 months later.
33	Raymond Johnson (1892); THE LANCET, March 18th, 1893.	F. 53	Lympho-sarcoma of tonsil and glands in neck.	Glands removed from neck. Pharynx exposed from neck. Ligature of external carotid. Tonsil clipped out.	Recovered	Recurrence in glands; removed a month later, and again 6 months later. No local recurrence.
34	Chavasse (1892): THE LANCET, June 10th, 1893.	? ?	Alveolar sarcoma of left tonsil; glands at angle of jaw. Thumb previously removed for sarcoma.	Oblique incision from ear to hyoid bone, connected with one from angle of mouth.	Recovered	No recurrence 14 months later.
			b. Tracheotomy.			
			a. Carcinoma.			
35	Kocher (1875): Deutsche Zeitschrift für Chirurgie, 1880.	M. 53	Carcinoma of left tonsil spreading on to soft palate and base of tongue; glands.	Glands removed first. Eight weeks later, removal of primary mass, including common carotid, great cornu of hyoid bone, posterior part of tongue, soft palate, tonsil, and side of pharynx.	Recurred immediately, and 4 weeks later second operation, followed by death from septic pneumonia.	On 6th day, after first operation, embolism of left retinal artery.
36	Charters Symonds: Brit. Med. Jour., 1888.	M. 45	Epithelioma of anterior part of tonsil, extending on to floor of mouth, cheek, and gum. Submaxillary gland affected.	Cheek split. Removal of tonsil, part of soft palate, pharynx and tongue, by clipping; gum peeled off.	Recovered	Recurred in 3 months, and again excised with part of jaw. Second recurrence and operation. Third recurrence and death.
37	Küster (?) (1884): From Meyer's Thesis, Beiträge zur Statistik der Zungen Carcinome, 1888.	M. 50	Carcinoma of back of right side of tongue, spreading on to pharynx up to the neighbourhood of the inferior maxillary joint; glands.	Gland removed. Cheek split. Removal of disease. Jaw not divided.	Recovered	Died of recurrence 2½ months later.
38	Watson Cheyne (12/6/95).	M. 44	Epithelioma of right tonsil, base of tongue, floor of mouth, soft palate, and side of pharynx. Glands.	Removal of glands and ligature of external carotid. Cheek split to masseter. Lateral pharyngotomy. Disease removed in one mass (part of tongue, tonsil, half soft palate, part of wall of pharynx).	Did well, and was able to be up and feed himself, when, on July 7th (25 days after the operation), there was a sudden hæmorrhage from the external carotid, which choked him before assistance could be obtained.	
39	Watson Cheyne (1/7/95).	M. 56	Epithelioma of tongue, tonsil, soft palate and side of pharynx on right side. Glands in neck.	As in former case (38), but in addition the internal carotid was firmly involved in the growth, and as the patient was very collapsed it was left for 4 days and then removed.	Went on well for 4 days, then removal of diseased internal carotid. That evening signs of septic pneumonia, and next day also of paralysis of left side, and death on sixth day.	
40	Watson Cheyne (23/7/95).	M. 55	Epithelioma of the posterior part of the right half of the tongue, tonsil, half of soft palate, side of pharynx and glands in neck.	Ligature of external carotid and removal of glands. A week later tracheotomy, upper part of wound reopened, and primary mass excised.	After the second operation patient suffered from post-operative mania, and it was a most difficult thing to feed or do anything with him. Otherwise he went on well till 8th day, no fever, &c. On 11th day slight hæmorrhage, common carotid tied by a colleague. Two days later complete hemiplegia on opposite side and ultimately death on the 31st day after operation. Softening of right part of brain and abscess in lung.	
41	Milligan (1892): Journal of Laryngotomy, 1893.	M. 49	Epithelioma of left tonsil, palatine arches, part of soft palate, and small piece of hard, posterior third of tongue. Glands.	Incisions along jaw from symphysis and oblique one thence to sterno-mastoid. Parts removed.	Died of hæmorrhage from common carotid on 27th day.	

TABLE III.—GROUP II.—*Continued*.

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
42	Dupage (1895).	M. 52	Cancer of lower part of pharynx and œsophagus.	Sub-hyoid pharyngotomy and vertical incision. Pharynx divided above tumour and parts removed. Œsophagus sutured to skin.	Recovered.	
43	Dupage (1895).	M. 53	Epithelioma on right side of upper part of pharynx.	Tracheotomy, lateral pharyngotomy, removal of disease.	Died on tenth day of post-operative mania.	
	2. Where the jaw was divided.				*a*. No tracheotomy.	
	a. Carcinoma.					
44	Heinecke (1877): From Kranefuss's thesis, Ueber einen Fall von retropharyngealem Carcinom.	M. 51	Carcinoma of tonsil, soft palate, and side of pharynx.	Removal of portion of lower jaw and of disease. Wound left open in middle.	Healed after plastic operation.	No further result given.
45	Albert (1878): Wiener Medicinische Presse, vol. xix.	M. 58	Carcinoma of lateral pharyngeal wall recurring after removal of parts through mouth with scissors.	Division of jaw and removal of remains of tonsil and posterior pillar of fauces.	Healed	No further result given.
46	Mikulicz (1883): Deutsche Medicinische Wochenschrift, 1886.	F. 65	Epithelioma of tonsil, pharynx, base of tongue, soft palate, and glands.	Lateral pharyngotomy and removal of ascending ramus of jaw from in front of angle.	Recovery	Recurred within 2 years locally, and inoperable. Bad functional result.
47	Mikulicz (1883): Deutsche Medicinische Wochenschrift, 1886.	M. 61	Carcinoma of tonsil, soft and hard palate.	Same as above, but failed to entirely remove disease.	Death in 2½ hours from collapse and blood in trachea.	
48	Polaillon (1882): Gazette Médicale de Paris, 1886.	M. 43	Epithelioma of left tonsil spreading on to anterior pillar of fauces, soft palate, and base of tongue. Glands in neck.	Removal of glands and ligature of external carotid. Incision from angle of mouth to join vertical one. Tumour removed by galvano- and thermo-cautery.	Recovery. Violent hæmorrhage on tenth and eleventh days.	Died of recurrence during the year.
49	Trendelenburg (1888): From Stappert's thesis, Das Carcinom der Tonsille, 1889.	M. 37	Carcinoma of right tonsil reaching down to larynx, involving half of soft palate and base of tongue. Glands.	Incision dividing middle of lower lip and along lower border of jaw to angle. Removal of disease, including right half of tongue. No ligature of external carotid.	Recovered and discharged in a month. Bleeding not severe.	No further result.
50	Polaillon (1884): Gazette Médicale de Paris, 1886.	M. 41	Carcinoma of half soft palate, tonsil, side of tongue, and floor of mouth on left side. Glands.	Ligature of external carotid. Incision from angle of jaw to the neck incision. Removal by galvano-cautery.	Recovery. Hæmorrhage on next day, and on third day very profuse. Stopped by plugging and ligature.	Recurrence in 2 months and death in 8 months.
51	Polaillon (1885): Gazette Médicale de Paris, 1886.	M. 55	Epithelioma of left lower gum, floor of mouth, and extending on to pharynx. Gland.	Ligature of external carotid. Division of lower jaw and removal of mass by thermo-cautery.	Hæmorrhage on the fourth day and rapid death, probably from external carotid, the ligature being destroyed by the cautery.	
52	Polaillon (1886): Gazette Médicale de Paris, 1886.	M. 70	Epithelioma of right tonsil, soft palate, pillars of fauces, and base of tongue.	As above	Died, septic pneumonia, on third day.	
53	Weinlechner (1888): Aerztlich Bericht des k. k. Allgemein. Krank. zu Wien, 1888, p. 208.	M. 60	Ulcerated tumour of right tonsil, soft palate, and anterior pillar of fauces (? carcinoma).	Incision from angle of mouth, resection of jaw, &c.	Severe bleeding third day. Ligature of common carotid, followed by hemiplegia in 3 hours and death in 17 hours.	
54	Küster (?) (1894): Meyer's Thesis, Statistik der Zungen Carcinome, 1888.	M. 28	Carcinoma of base of left side of tongue, extending on to pharynx. Gland.	Both linguals tied. Jaw sawn through and disease removed. Much blood lost, and some entered trachea.	Recovered	Recurred quickly, and patient died 11 months after operation.
55	Küster (?). Meyer's Thesis.	M. 39	Carcinoma of base of left side of tongue, anterior pillar of fauces, and epiglottis.	Removal of more than half the tongue, half the epiglottis and hyoid bone, left tonsil, pillars of fauces, and left side of floor of mouth.	Recovered	Recurred quickly, and died 9½ months after operation.
56	Rushton Parker (1876): Medical Times and Gazette, 1877, p. 590.	M. 58	Epithelioma of left side of tongue, lower jaw, and cheek.	Cheek split, body of jaw removed, half the tongue, part of each jaw, sub-maxillary gland, side of pharynx and part of soft palate.	Recovered	Recurred in glands, on right side, 6 years later, and subsequent death.

TABLE III.—GROUP II.—*Continued*.

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
57	Rushton Parker (1877): Medical Times and Gazette, 1877, p. 590.	M. 54	Epithelioma of soft palate, fauces, gum, and floor of mouth.	Cheek split and piece of jaw removed. Removal of half tongue, half of soft palate, side of pharynx and submaxillary glands.	Recovered	Recurred in glands, attempt to remove them failed. Death 5½ months after operation.
58	Lange: New York Medical Journal, 1891.	? ?	Epithelioma of left wall of pharynx, tonsil, soft palate, and submaxillary gland.	Cheek split and jaw divided near angle. Affected parts excised.	Recovered	Swallows well. No further history.
59	Kocher (1883): Langenbeck's Archiv für Klinische Chirurgie, vol. xlv.	M. 49	Recurrence *in situ* after removal of carcinoma of right tonsil, &c. See Case 27.	Extensive removal of affected parts.	Recovered	No further history.
60	Kocher (1885): Langenbeck's Archiv für Klinische Chirurgie, vol. xlv.	M. 57	Carcinoma of anterior pillar of fauces, soft palate, tonsil, side of pharynx, and base of tongue. Glands.	Excision of diseased portion of jaw and affected parts.	Recovered	No further history.
61	Barker (1885): THE LANCET, Dec. 3rd, 1887.	M. 56	Epithelioma of tonsil and side of pharynx, slightly on hard and soft palates, on side of tongue, and on lower jaw behind molar.	Cheek split, ascending ramus of jaw removed. Half soft palate, mucous membrane on hard; side of pharynx and part of tongue removed.	Recovered	Recurred in 6 months, and died 3 months later.
62	Watson Cheyne (October, 1895). See Lecture.	M. 55	Recurrence *in situ* after removal of epithelioma of tonsil, palate, tongue, &c. See Case 34.	Removal of ramus of jaw and internal pterygoid muscle, pterygoid plates, part of masseter and temporal muscles, scar tissue. Nitric acid applied to cut surfaces.	Recovered. On the 9th day, nitric acid sloughs separating and hæmorrhage from internal carotid, which was tied above and below, without any bad result.	Patient still well.
63	Dupage (1894): Journal of Laryngology, 1895.	M. 52	Epithelioma of right tonsil, soft palate, and lateral wall of pharynx. Many glands.	Glands removed and external carotid tied. Pharynx exposed by Mikulicz's method, and affected parts removed.	Recovered	Well 8 months later.
			β. Sarcoma.			
64	Cheever: Philadelphia Medical News, 1889.	M. 57	Round-celled sarcoma of left tonsil. Two glands in neck.	Glands removed. Jaw sawn and tumour taken away.	Recovered	Recurred in glands in anterior triangle. Removed. No further report.
65	Trendelenburg (1882): Jardon's Thesis, Ueber Tonsillengeschwülste, 1883.	M. 49	Malignant lymphoma of right tonsil extending into soft palate and on to wall of pharynx. Large mass in neck at angle of jaw.	Removal by lateral pharyngotomy and division of jaw.	Recovered	Recurrence locally 6 months later, and also nodules over the body.
66	Wecks (1891): Transactions of American Surgical Association, 1892.	M. 57	Very large ulcerated left tonsil (? sarcoma) filling fauces. Glandular masses in neck.	Glands removed, jaw divided, tonsil removed.	Recovered	Well a year later.
67	Von Winiwarter: Archiv für Klinische Chirurgie, vol. xviii.	M. 62	Malignant lymphoma of right tonsil pushing aside uvula, extending on to angle of lower jaw and side of pharynx. Mass in anterior triangle.	Removed after resection of the jaw.	Died on 2nd day.	
68	Genzmer: Deutsche Gesellschaft für Chirurgie, 1879, vol. viii.	M. ?	Sarcoma of tonsil ...	Division of jaw. Removal of tonsil, part of soft palate, whole of right, and half posterior pharyngeal wall.	Recovered	Well 2¾ years later.
			a. Carcinoma.			
69	Von Bergmann (1883): Deutsche Medicinische Wochenschrift, 1883.	F. 62	Carcinoma of tongue, tonsil, and side of pharynx; right side. Glands.	Removal of tongue (only a very small piece left on left side), piece of jaw, floor of mouth, side of pharynx, submaxillary glands, and lymphatic glands. Plastic 3 weeks later.	Recovered	Well 107 days after operation.
70	Mikulicz: Deutsche Medicinische Wochenschrift, 1886.	M. 42	Carcinoma of whole side of pharynx and half soft palate, going high up to base of skull. Glands.	Removal of ascending ramus of jaw. Failure to remove the upper part of growth.	Recovered. Went out in 6 weeks.	Continued growth.
71	Mikulicz (1894): Langenbeck's Archiv für Klinische Chirurgie, 1895.	M. 55	Carcinoma of right tonsil, spreading on to soft palate down to base of tongue, reaching upper jaw, and upwards into post-nasal space. No glands.	Incision along anterior border of sterno-mastoid, and then from angle mouth of to middle of this. Ramus of jaw removed behind. Tumour removed.	Recovered	No further history.

TABLE III.—GROUP II.—*Continued.*

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
72	Helferich (1890): Barthauer's Thesis, Ueber Malignen Pharynxtumoren, 1891.	F. 61	Epithelioma on left side of pharynx, soft palate spreading on to hard palate, tonsil, pillars of fauces, side of pharynx as low as larynx, and on to tongue.	Tracheotomy. Subhyoid pharyngotomy; cheek split from angle of mouth to other incision, jaw divided, and ramus removed. Tumour taken away, also piece of hard palate. Tumour reached up to base of skull, and was there peeled off, and the surface cauterised with thermo-cautery.	Died, on 6th day, of septic pneumonia.	
73	Kuster (1884): Deutsche Medicinische Wochenschrift, 1885.	M. 61	Epithelioma of left tonsil, soft palate, pharynx and tongue, and mucous membrane over angle of jaw up to upper jaw. Glands.	Incision from angle of mouth to sterno-mastoid. Jaw sawn in front of masseter. Posterior part disarticulated. Growth removed.	Died, on 7th day, of septic pneumonia and mediastinitis.	
74	Kuster (1885): Deutsche Medicinische Wochenschrift, 1885.	M. 49	Epithelioma of left tonsil and side of pharynx on to side of tongue, and soft palate to near uvula.	Jaw sawn through as in 73, and ramus removed. Removal of growth. No glands removed.	Recovered. Functional result good	Recurred in lymphatic glands. Removal 5 months later. No further history.
75	Kocher (1879): Deutsche Zeitschrift für Chirurgie, 1880.	M. 45	Excision of tongue in May of same year. In Oct. recurrence over lower jaw in front of masseter, from this an ulcerated mass down to hyoid bone, inside of cheek, on to soft palate, tonsil, and whole side of pharynx up to naso pharynx.	Angular incision laying bare side of jaw and neck. Branches of carotid and jugular tied. Left half of lower jaw removed, and all the growth and remains of tongue.	Recovered	Recurrence 9 weeks later. Inoperable.
76	Kocher (1876): Deutsche Zeitschrift für Chirurgie, 1880.	M. 53	Carcinoma on left side of tongue (ulcerated) extending on to fold between the jaws, up to the tonsils, and on to soft palate as far as uvula.	Jaw divided at anterior border of masseter. Incision along anterior border of sterno-mastoid and along jaw. Wound left open. Tracheotomy tube left in 5 days.	Recovered. Still small fistula. Non-union of jaw.	9 months later, removal of glands. Well, 3 years later.
77	Kocher (1875): Deutsche Zeitschrift für Chirurgie, 1880.	M. 52	In May, removal of whole left half of tongue. Recurrence in January, adherent to jaw, reaching to hyoid bone and in stump of tongue.	Removal of piece of jaw, tumour, great cornu of hyoid bone and stump of tongue.	Recovered	Died of recurrence a year later.
78	Kocher (1876): Deutsche Zeitschrift für Chirurgie, 1880.	M. 56	Epithelimatous ulcer of base of left side of tongue, extending on to side of pharynx and up to hard palate. Glands.	Jaw divided in front of masseter and posterior part removed. Disease cut away.	Died on 5th day from septic pneumonia.	
79	Kocher (1881): Langenbeck's Archiv für Klinische Chirurgie, vol. 45.	M. 23	Carcinoma of left side of tongue, anterior pillar of fauces, tonsil, and pharynx.	Division of jaw and removal of disease.	Died after 36 hours from septic pleurisy.	
80	Braem (1894): Langenbeck's Archiv für Klinische Chirurgie, 1896.	M. 58	Carcinoma of left tonsil and side of pharynx, extending on to mucous membrane between the jaws and over angle of lower jaw and posterior pillar of fauces, soft palate to border of hard and down close to base of tongue. Glands.	Incision along anterior border of sterno-mastoid. Glands removed. Then from angle of mouth to middle of this. Jaw removed from in front of masseter. Mass removed. Trendelenburg cannula left for 24 hours, and ordinary cannula for 7 days.	Recovered	No recurrence 6 months later. Functional result good.
81	Albert: Wiener Medicinische Presse, vol. 19.	M. 27	Recurrence after removal of carcinoma of right upper jaw and extension to pharynx; affecting pharynx, lower jaw, cicatrix of upper, &c.	Removal of tissue replacing right upper jaw and part of left, the right side of the pharynx, almost all the right side of the lower jaw and glands	Recovered (?)	Further recurrence, and death soon afterwards.
82	Dupage (1896): Journal of Laryngology, 1896.	M. 53	Carcinoma of both tonsils and all posterior wall of pharynx.	External carotid tied, Mikulicz's method; whole pharynx and epiglottis removed.	Recovered in spite of pneumonia, diarrhœa, cystitis, &c.	Well, 4 months after operation.
83	Lack (1896): Not published.	M. 54	Epithelioma of left tonsil, soft palate, slightly on to hard, and slightly on to lateral wall of pharynx, on to lower jaw and adjoining part of cheek. Glands in neck.	Glands removed, external carotid tied, incision along sterno-mastoid and thence along lower border of jaw. Flap raised, jaw divided close to second molar and ramus excised. Pharynx opened and mass clipped out.	Went on well for 3 weeks and parts looked well. Died suddenly, cause not discovered. (? Septicæmia.)	

TABLE III.—GROUP II.—*Continued.*

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
84	Watson Cheyne (26/7/95). See Lecture II.	M. 55	Epithelioma of tongue, tonsil, soft palate, side of pharynx, gum of lower jaw at back and glands in neck on left side.	Removal of glands and ligature of external carotid. A week later tracheotomy, division of jaw and removal of affected portion with half the tongue, the tonsil, half the soft palate, &c.	Recovered	Recurred 2½ months later locally. See Case 62.
85	Mikulicz: Deutsche Medicinische Wochenschrift, 1886.	M. 28	Sarcoma of tonsil spreading on to pharynx, almost filling it up, and up to choanæ.	Mikulicz's operation. Tracheotomy.	Healed	Died, 3 months later suddenly. Cause not known.
86	Obalinski: Centralblatt für Chirurgie, vol. xiv.	M. 49	Sarcoma of right side of pharynx and tonsil, involving pillars of fauces and soft palate. Glands.	Removal of glands. Resection of jaw. Removal of tumour.	Recovered in 5 weeks. Function good.	No further note.
87	Kümell: Deutsche Medicinische Wochenschrift, 1888.	M. 28	Sarcoma of right tonsil, pillars of fauces, and part of pharynx, developing after removal of a large sarcomatous mass from the neck.	Lateral pharyngotomy. Jaw sawn through. Cheek split.	Recovered. Tracheotomy tube removed on 4th day.	No further note.
88	Czerny (1877): Beiträge zur Operativen Chirurgie, 1878, p. 64.	M. 34	Lympho-sarcoma of left tonsil, soft palate. Wall of pharynx ulcerated. Mass felt at angle of jaw.	Division of jaw. Removal of tumour. Suspicious part left in pharyngo-palatine fossa.	Recovered	Recurred, and second operation 2½ months after first. Died on 7th day from hæmorrhage from lingual artery.
89	Macleod (1880): Glasgow Medical Journal, 1880.	F. 53	Round-celled sarcoma of palate and side of pharnyx.	Jaw split at symphysis. Tumour shelled out with fingers.	Died 2nd day. Lung trouble.	
90	Cheevers (1878): Boston Medical and Surgical News, 1878.	M. 37	Tumour (sarcoma?) of right tonsil passing middle line, and growing rapidly. Glands.	Glands removed. Jaw divided, and tonsil enucleated with fingers.	Recovered	Local recurrence in a month cauterised. Further recurrence and death.
91	Roswell Park (1878): Medical Record, 1893.	M. 58	Round-celled sarcoma of left tonsil, and soft palate ulcerated. Glands.	Glands removed. Jaw divided. Gland and tumour removed.	Recovered	Well, 2½ years later.
92	Roswell Park (1891): Medical Record, 1893.	M. 31	Sarcoma (?) of right tonsil extending into and blocking naso-pharynx. Glands on both sides of neck.	Jaw divided. Common carotid and internal jugular tied.	Died 4 days later.	
93	Lanphear (1894): New York Medical Journal, 1895.	? ?	Sarcoma of right tonsil recurring rapidly after simple removal, filling up pharynx. Mass in neck. Facial paralysis.	Tracheotomy. 3 days later division of jaw, external carotid tied, and mass in neck and mouth removed. Internal carotid wounded and tied.	Died 3 days later; hemiplegia. Never recovered consciousness.	

B.—Where the pharyngeal disease was at a lower level than the tonsillar region, or at any rate d not involve it.

a. Carcinoma.

94	Heineke (1878): Kranefuss's Thesis.	M. 54	Medullary carcinoma of posterior wall of pharynx.	Division of jaw. Removal of mass.	Death in 4 weeks—pneumonia.	
95	Von Bergmann: From Iversen.	M. 58	Cancer of lower part of pharynx and upper part of œsophagus.	Removed	Died 5 days later from suppuration in neck and mediastinitis.	
96	Israël: Berliner Klinische Wochenschrift, 1883.	M. 64	Cancer in left side and anterior wall of pharynx.	Tracheotomy 3 days previously. Oblique incision. Sub-hyoid pharyngotomy, and tumour removed easily.	Died 7 days later from suppuration between trachea and œsophagus and septic pneumonia.	
97	Iversen: Von Langenbeck's Archiv für Klinische Chirurgie, vol. xxxi.	F. 34	Epithelioma of posterior wall of pharynx, extending slightly on to left wall.	Tracheotomy. Sub-hyoid pharyngotomy.	Recovered	Recurred, and 5 months after operation tracheotomy and gastrostomy. Died a month later.
98	Iversen: Von Langenbeck's Archiv für Klinische Chirurgie, vol. xxxi.	F. 51	Epithelioma of posterior wall of pharynx at level of entrance of larynx.	Tracheotomy. Sub-hyoid pharyngotomy.	Recovered	Recurred 6 months later. Inoperable.
99	Iversen: Von Langenbeck's Archiv für Klinische Chirurgie, vol. xxxi.	F. 43	Epithelioma of posterior wall of pharynx and œsophagus.	Tracheotomy. Sub-hyoid pharyngotomy.	Recovered	Recurred 4 months later.
100	Cramer (1889): Berliner Klinische Wochenschrift, 1890, p. 987.	M. 57	Carcinoma of posterior wall of pharynx.	Tracheotomy, and 2 days later sub-hyoid pharyngotomy.	Recovered	Died of phthisis 9 months later. No recurrence.

TABLE III.—GROUP II.—*Continued.*

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
101	Woods: Medical Press and Circular, 1893.	F. 44	Epithelioma of posterior wall of pharynx just above right arytenoid cartilage.	Tracheotomy. Sub-hyoid pharyngotomy and growth removed. Much blood swallowed; removed by stomach-tube.	Recovered.	No further history.
102	Verneuil (1886): From Kranefuss's Thesis.	? ?	Carcinoma of pharynx.	Langenbeck's incision, with resection of jaw.	Death in 4 weeks from septic pneumonia.	
			β. Sarcoma.			
103	Von Bardeleben: Schmidt's Jahrbuch, 1885, vol. ccvii.	F. 40	Retropharyngeal fibro-sarcoma.	Lateral pharyngotomy. Incision along border of sterno-mastoid.	Recovered after membranous pharyngitis and laryngitis. Sent out at end of 7 weeks.	
104	Verneuil: Progrès Médical, 1884.	F. 57	Sarcoma of sub-hyoid region reaching to left parotid region.	Tracheotomy. Removal of tumour and diseased part of hyoid bone.	Died of collapse. Secondary nodules found in lungs and mediastinal glands.	
105	Baum (1875): Berliner Klinische Wochenschrift, 1875. Reported by Rosenbach.	M. 45	Round-celled sarcoma about size of hen's egg in pharynx, chiefly on right side.	Tracheotomy on admission for dyspnœa. Pharynx opened, tumour peeled off, and base ligatured and removed.	Recovered	Recurred later. Operated on by König.
106	Von Langenbeck (1873): Archiv für Klinische Chirurgie, vol. xv. Quoted from Kranefuss's Thesis.	F. 22	Small-celled sarcoma of pharynx.	Tracheotomy. Resection of jaw. Failure to remove disease.	Death on 5th day from septic pneumonia.	
107	Von Bergmann (1883): Deutsche Medicinische Wochenschrift, 1883.	F. 18	Spindle-celled sarcoma of left great cornu of hyoid bone involving wall of pharynx; ulcerated.	Division of jaw. Formation of fistula. Tracheotomy. Pharyngotomia lateralis after von Langenbeck. Removal of piece of great cornu.	Recovered	Well 5 weeks after operation.
108	Lange: New York Medical Journal, vol. xlv.	M. ?	Sarcoma of left half of pharynx behind palate and down so far as to dislocate larynx.	Tracheotomy. Ramus of jaw removed and disease scraped out.	Recovered	Well 7 months later. (? Simple tumour.)
			C.—Where the epiglottis was the centre of the disease.			
			α. Carcinoma.			
109	Von Langenbeck: Keitel's Thesis, Operationen am Pharynx und Œsophagus, 1883.	M. 51	Carcinoma of epiglottis, &c.	Tracheotomy. Sub-hyoid pharyngotomy and epiglottis removed.	Died third day. Double pleurisy, pericarditis, and mediastinitis. Some growth seen on hyoid bone and arytenoids.	
110	Israël (1893): Von Langenbeck's Archiv für Klinische Chirurgie, 1895.	M. 64	Epithelioma of whole epiglottis and right glosso-epiglottic ligament, and in fossa between tongue and epiglottis. No glands.	Tracheotomy 3 days previously. Incision along lower border of hyoid bone, and all muscles, &c., divided, except thyro-hyoids. Superior laryngeal nerves preserved. Divided thyro-hyoid ligament close to hyoid, and glosso-epiglottic folds. Epiglottis removed. Mucous membrane of tongue stitched back to divided part. Cannula changed second day, and Hahn changed for ordinary tube on third.	Recovered	Four months later, glands removed from both sides of neck. Well 2 years later.
111	Von Schulten: Virchow Hirsch Jahrbuch, 1882, II., p. 363.	M. 54	Epithelioma of epiglottis.	Tracheotomy, followed by bronchitis. Four weeks later sub-hyoid pharyngotomy (Malgaigne) and removal of greater part of epiglottis.	Recovered	No recurrence after 5 months. Eight weeks after operation could swallow well, but had to wear cannula.
112	Watson Cheyne (23/11/94): See Lecture.	M. 60	Epithelioma of base of tongue and epiglottis chiefly on left side. Glands in anterior triangle.	Tracheotomy. Removal of glands. Ligature of external carotid. Lateral pharyngotomy, removal of whole epiglottis and base of tongue.	Recovered	Glands removed from left posterior triangle July, 1895, and from right anterior triangle December, 1895. Well 15 months after operation. Excellent functional result.

TABLE III.—GROUP II.—*Continued.*

β. Sarcoma.

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
113	Burow: Berliner Klinische Wochenschrift, 1877.	M. 30	Sarcoma of epiglottis removed with snare 1874. Four months later recurrence, forming ulcerated tumour in site of epiglottis obstructing respiration. No glands.	Tracheotomy for dyspnœa. Six days later, removal by snare, but part left. Ten days later, sub-hyoid pharyngotomy part cut off and rest scraped.	Recovered	Well 1½ years later.
114	Albert (1877): Wiener Medicinische Presse, vol. xix.	F. 64	Sarcoma of left arytenoid extending on to epiglottis.	No tracheotomy. Sub-hyoid pharyngotomy and removal of arytenoid and affected part of epiglottis.	Recovered	Well a year later.

GROUP III.—*Cases where the Disease involved both Pharynx and Larynx.*

a. Carcinoma.

115	Von Langenbeck (1878): Archiv für Klinische Chirurgie, vol. xxiv.	M. 48	Carcinoma of right side of pharynx, involving right half of thyroid cartilage, right ary-epiglottic fold, and tip of arytenoid cartilage; glands.	Tracheotomy. Pharynx opened from side. Tumour and part of thyroid cartilage and arytenoid removed. Superior laryngeal nerve divided.	Death, 3 days later, from septic pneumonia.	
116	Von Langenbeck (1878): Archiv für Klinische Chirurgie, vol. xxiv.	M. 78	Epithelioma of posterior wall of pharynx, coming on to lower part of thyroid cartilage.	Lateral pharyngotomy. Removal of pharynx and upper part of œsophagus, piece of thyroid cartilage, and half thyroid gland.	Death, a few hours after operation, from collapse.	
117	Von Langenbeck: Archiv für Klinische Chirurgie, 1879.	F. 52	Carcinoma of right half of pharynx and right arytenoid cartilage.	Tracheotomy and lateral pharyngotomy. Removal of affected part of pharynx, right arytenoid cartilage, and posterior part of right vocal cord.	Died, in 13 days, from septic pneumonia.	
118	Thiersch: From Iversen's paper, Archiv für Klinische Chirurgie, vol. xxxi.	F. 45	Carcinoma of pharynx at lower part and all round œsophagus and affecting larynx.	Resection of pharynx, œsophagus, and larynx.	Recovered	Died, 4 months later, from local recurrence.
119	Thiersch: From Iversen.	F. 57	Carcinoma of pharynx spreading on to both arytenoid cartilages, down to œsophagus, and involving thyroid gland.	Removal of pharynx, larynx, and œsophagus to 2½ cm. below manubrium sterni.	Death, 7 days later, from septic pneumonia.	
120	Iversen: Archiv für Klinische Chirurgie, vol. xxxi.	F. 44	Epithelioma surrounding lower part of pharynx and entrance of œsophagus, affecting posterior part of larynx.	Tracheotomy. Sub-hyoid pharyngotomy. Removal of larynx and upper part of œsophagus.	Recovered	No recurrence after 11 months. Functional result good, but contraction at entrance of œsophagus so great that introduction of œsophageal tube blocked trachea. Attempt to remedy this led to patient's death in 8 days from septicæmia.
121	Iversen: Archiv für Klinische Chirurgie, vol. xxxi.	F. 48	Carcinoma of pharynx and œsophagus, paralysis of vocal cords, and affection of larynx.	Tracheotomy. Removal of larynx, pharynx, and upper part of œsophagus.	Recovered	Well 5 months later.
122	Iversen: Journal of Laryngology, 1888.	F. 49	Epithelioma of lower part of pharynx and upper part of œsophagus.	Excision of larynx, pharynx, upper part of œsophagus, and left lobe of thyroid.	Died on 37th day from broncho-pneumonia and abscess in lung.	
123	Iversen: Journal of Laryngology.	F. 27	Epithelioma of posterior surface of cricoid, lower part of pharynx and upper part of œsophagus.	Removal of larynx, pharynx, upper part of œsophagus, and right lobe of thyroid.	Died, 30 hours later, from collapse.	
124	Iversen: Journal of Laryngology.	F. 46	Epithelioma of right arytenoid and ary-epiglottic fold, and of pharynx down to œsophagus.	Removed incompletely.	Died, 8th day. (? Iodoform ? septicæmia.)	
125	Iversen: Journal of Laryngology.	F. 34	Epithelioma of epiglottis extending down to lower part of pharynx.	Removal of pharynx, larynx, epiglottis, and left lobe of thyroid.	Recovered	Well 14 months later.
126	Marcacci: From Bosworth's Diseases of the Throat and Nose.	F. 20	Epithelioma of lower part of pharynx and upper part of œsophagus. Larynx also involved.	Sub-hyoid pharyngotomy (?)	Death in 4 days.	

TABLE III.—GROUP III.—*Continued.*

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
127	Watson Cheyne (1/8/92): See Lecture II.	M. 40	Epithelioma of right side of pharynx, right ary-epiglottic fold, and epiglottis. Mass adherent to thyroid cartilage.	Tracheotomy. Lateral pharyngotomy. Removal of disease and half the epiglottis. Rest of larynx left intact. Rest of epiglottis removed next day.	Died from septic pneumonia, on 4th day.	
128	McLeod (1891): Indian Medical Gazette, 1891.	M. 38	Malignant disease of left half of larynx, epiglottis, and arytenoids. Glands.	Extirpation of whole larynx, anterior wall of pharynx, and glands.	Recovered	No further history.
129	Lack (1894): Not published.	F. 54	Epithelioma of right arytenoid and adjacent parts.	Tracheotomy, lateral pharyngotomy, and excision of affected parts.	Died, on 8th day, from exhaustion partly due to hæmorrhage.	
130	Bull (1888): Medical Record, 1895.	M. 51	Epithelioma of right side of larynx, epiglottis, and neighbourhood. Glands.	Tracheotomy. 11 days later removal of half the larynx, epiglottis, and part of pharynx.	Recovered	Died from recurrence in 14 months.
131	Stimson (1892): Medical Record, 1895.	M. 36	Carcinoma of larynx and œsophagus.	Removal of part of larynx and œsophagus.	Died in 36 hours.	
132	Branham (1887): Medical Record, 1895.	M. ?	Carcinoma (?)	Removal of larynx and pharynx.	Died, on the 4th day, from pneumonia.	
133	Roux (1887): Medical Record, 1895.	F. 61	Carcinoma (?)	Removal of larynx, pharynx, and glands.	Recovered	Recurred in 4 months.
134	Billroth (1879): Archiv für Klinische Chirurgie, vol. xxxi.	F. 43	Carcinoma of larynx and pharynx.	Removal of whole larynx, thyroid gland, and part of pharynx.	Died 5 weeks later, from œsophageal tube passing into mediastinum.	
135	MacEwen (1879): Tauber 26 in Archiv für Klinische Chirurgie, vol. xii.	M. 56	Carcinoma of larynx and pharynx. Glands.	Removal of whole larynx, upper part of pharynx, and glands.	Died, on 3rd day, from pneumonia.	
136	Bircher (1880): Tauber, 41.	F. 49	Scirrhus of thyroid gland and larynx. Partial laryngectomy and recurrence in 6 months.	Removal of whole larynx and part of pharynx.	Died, 16th day, from pneumonia and gangrene of lung.	
137	Albert (1881): Tauber, 54.	M. 45	Carcinoma of larynx, filling up nearly half the lumen.	Removal of whole larynx, except epiglottis and part of œsophagus.	Died, on 8th day, bleeding from internal carotid, ligature; collapse.	
138	Margary (1881): Tauber, 56.	F. 36	Epithelioma, larynx and œsophagus.	Removal of whole larynx and first tracheal ring, part of pharynx and œsophagus.	Recovered	Recurred in 3 months, and died from bleeding in 6 months.
139	Reyher (1882): Tauber, 64.	M. 55	Carcinoma, larynx and pharynx.	Removal of whole larynx and part of œsophagus.	Died, 14th day, from inanition.	
140	Holmer (1882): Tauber, 69.	M. 63	Epithelioma of larynx and pharynx.	Removal of whole larynx and part of pharynx.	Died, 4th day.	
141	Von Winiwarter (1882): Tauber, 76.	M. 50	Carcinoma of larynx, pharynx, and glands.	Removal of whole larynx, part of pharynx and glands, with internal jugular vein.	Died, 9th week, inanition.	
142	Novaro (1883): Tauber, 87.	M. 54	Carcinoma of larynx, pharynx, and thyroid gland.	Removal of whole larynx, thyroid gland, and part of pharynx.	Died, 1 month, croupous pneumonia.	
143	Thos. Jones (1884): Tauber, 94.	M. 44	Epithelioma of larynx and pharynx.	Removal of whole larynx, part of pharynx, and first tracheal ring.	Recovered	Recurred in lymphatic glands.
144	Hahn (1884): Tauber, 101.	F. 52	Carcinoma of œsophagus and larynx.	Removal of whole larynx, anterior wall of pharynx, and œsophagus.	Recovered	Rapid recurrence and death in 2 or 3 months.
145	Jawdynsky (1885): Tauber, 112.	F. 63	Carcinoma, larynx and pharynx.	Removal of whole larynx and part of pharynx.	Recovered	Died from recurrence in 10 months.
146	Péan (1885): Tauber, 119.	M. 65	Epithelioma, larynx and pharynx.	Removal of whole larynx, part of epiglottis, and anterior wall of pharynx.	Died, pneumonia.	
147	Péan (1894): Archiv Internationale de Laryngologie, 1895.	M. 50	Epithelioma of larynx, epiglottis, pharynx, œsophagus, and trachea.	Tracheotomy. Removal of whole larynx, part of pharynx, and œsophagus.	Recovered	Well, 2 months later.
148	Dupont (1886): Tauber, 127.	M. 52	Carcinoma of larynx, epiglottis, and glands.	Removal of whole larynx, epiglottis, and part of œsophagus.	Recovered	Died 14 months later. (? Cause.)
149	Agnew: Tauber, 134.	M. 58	Carcinoma of larynx and glands.	Removal of whole larynx, and part of anterior wall of pharynx.	Died, 3rd day.	

TABLE III.—GROUP III.—*Continued.*

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
150	Rushton Parker (1887): Tauber, 147.	M. 39	Carcinoma of larynx and pharynx recurring after two previous partial operations.	Total extirpation of larynx, part of pharynx and tonsils.	Recovered	Recurred in 9 weeks followed by death.
151	Kocher (1882): Von Langenbeck's Archiv, vol. xliv.	M. 54	Carcinoma left ventricular band, arytenoid, ary-epiglottic fold, left side of pharynx and glands.	Total extirpation of larynx, part of pharynx and glands.	Recovered	No recurrence in 4 months. Died in 14 months, cause unknown.
152	Kocher (1882): Von Langenbeck's Archiv, vol. xliv.	M. 43	Carcinoma, larynx and pharynx.	Total extirpation of larynx and part of œsophagus.	Recovered	Recurred in 6 months.
153	Kocher (1889): Von Langenbeck's Archiv, vol. xliv.	M. 53	Epithelioma, larynx and glands, &c.	Total extirpation of larynx, resection of pharynx and œsophagus.	Died, 5th day, collapse and accumulation of mucus.	
154	Kocher (1840): Von Langenbeck's Archiv, vol. xliv.	M. 58	Diffuse growth upper part of larynx, tongue, and glands.	Removal of tongue, floor of mouth, hyoid bone, part of pharynx, thyroid cartilage, and lower jaw.	Recovered	Recurrence in 11 months.
155	Von Langenbeck (1875): No. 8 in Wassermann's Statistics. Deutsche Zeitschrift für Chirurgie, 1889.	M. 57	Carcinoma of larynx, epiglottis, and hyoid bone.	Removal of the whole larynx, epiglottis, part of tongue, pharynx, and œsophagus.	Recovered	Died of recurrence 4 months after operation.
156	Bottini (1877): No. 15, Wassermann.	M. 48	Epithelioma of larynx, &c.	Total extirpation of larynx and part of œsophagus.	Died, 3 days later, pneumonia.	
157	Thiersch (1880): Wassermann.	M. 36	Carcinoma of larynx, &c.	Total extirpation of larynx and part of œsophagus.	Recovered	Died, 3½ years later, of recurrence.
158	McLeod (Calcutta) (1883): Wassermann.	M. 40	Epithelioma of larynx, &c.	Total extirpation of larynx, epiglottis, part of pharynx, & glands.	Died, 5th day, hæmorrhage, commencing pneumonia.	
159	Landerer (1883): Wassermann.	M. 47	Carcinoma of larynx and pharynx.	Total extirpation of larynx and left side of œsophagus.	Died, 4th day, collapse.	
160	Krön'ein (1886): Wassermann.	F. 38	Carcinoma of larynx, &c.	Total extirpation of larynx and part of œsophagus.	Recovered	Died, 13 months later, of recurrence.
161	Novaro (1887): Wassermann.	M. 72	Carcinoma of pharynx and larynx.	Total extirpation of larynx and part of pharynx.	Recovered	Died of recurrence 9 months later.
162	Riegner (1888): Wassermann.	M. 60	Carcinoma of larynx, &c.	Total extirpation of larynx and part of trachea and œsophagus.	Died, 4 weeks later, pneumonia.	
163	Billroth (1881): Wassermann.	M. 65	Carcinoma of larynx, &c.	Removal of right half of larynx and part of pharynx.	Died, 6 weeks later, from sepsis, recurrence.	
164	Billroth (1884): Wassermann.	M. 58	Carcinoma of larynx and pharynx.	Removal of right half of larynx, part of pharynx, glands, and greater part of epiglottis.	... ...	Recurrence 2 months later.
165	Billroth (1884): Wassermann.	M. 46	Carcinoma of larynx and pharynx.	Removal of right half of larynx, part of pharynx, epiglottis, and glands.	Recovered	
166	Socin (1887): Wassermann.	F. 55	Epithelioma of larynx.	Removal of right half of larynx, epiglottis, half the hyoid bone, and part of the pharynx.	Recovered	No recurrence 10 months later.
167	Demous (1887): Wassermann.	M. 44	Epithelioma of epiglottis and tongue.	Removal of the upper two-thirds of thyroid cartilage, part of the pharynx and tongue.	Recovered	Recurrence 9 months later.
168	Krönlein (1887): Wassermann.	M. ?	Carcinoma of larynx ...	Removal of half the larynx, part of epiglottis, and pharynx.	Died, 17 days later, from pneumonia.	
169	Küster (1888): Wassermann.	M. 52	Carcinoma of larynx. Glands.	Removal of right half of larynx and part of pharynx.	Died, 19th day, putrid bronchitis.	
			β. Sarcoma.			
170	Caselli (1879): Tauber 27 in Archiv für Klinische Chirurgie, vol. xli.	F. 19	Sarcoma of pharynx, larynx, and base of tongue.	Removal of whole larynx, upper part of pharynx, and glands.	Died, on 3rd day, from pneumonia.	
171	Lange (1879): Tauber, 28.	M. 74	Sarcoma of larynx and part of pharynx.	Removal of whole larynx, right cornu of hyoid, and part of œsophagus.	Recovered	Died of recurrence 7 months later.
172	MacLeod (1883): Tauber, 86.	M. 54	Sarcoma of pharynx, larynx, &c.	Removal of whole larynx, part of pharynx, thyroid, and lymphatic glands.	Died on 5th day from hæmorrhage.	

ADDENDUM.

Three Cases of Nasal and Naso-pharyngeal Tumours.

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
1	Watson Cheyne (3/3/92): See Lecture II.	M. 46	Sarcoma growing from base of skull, coming down left side of naso-pharynx, blocking Eustachian tube, affecting upper part of soft palate. Glands in neck.	Tracheotomy. Removal of glands, excision of left upper jaw and pterygoid process. Removal of tumour. Cauterisation of bone.	Recovered	Recurrence in nose 15 months later. Growth cleared out, but recurred there and in glands. Died 2¾ years after operation.
2	Watson Cheyne (7/3/94): See Lecture II.	F. 45	Spindle-celled sarcoma growing from roof of nasal cavity and naso-pharynx, bulging the right eye outward and forward, destroying nasal bones and septum.	Incision on right side of nose from forehead to nostril. Removal of tumour.	Recovered	Well a year later.
3	Watson Cheyne (22/12/95): See Lecture II.	F. 24	Lympho-sarcoma growing from base of skull and projecting into naso-pharynx.	Soft and hard palate split, piece of hard palate and vomer removed, and tumour peeled off from bone. Nitric acid applied.	Recovered.	

The only larger statistics which, so far as I know, I have omitted are 12 cases by Krönlein, with 3 deaths. These have not, so far as I can find, however, been published, with the exception of two, one of which was well at the end of 7 years. To include this one and not the others would vitiate the statistics. I have also come across references to the following cases, but have not been able to find full details, and probably they are not published in detail, viz.:—Marchaud—Partial extirpation of the pharynx; died from pneumonia on 7th day. Trélat—Cancer of tonsil and pillars of fauces; recovered. Verneuil (mentioned by Castex)—Epithelioma of tonsil, soft palate, pharynx, tongue and floor of mouth; died from glycosuria. Labbe—Epithelioma of tonsil, soft palate, pharynx, tongue, and floor of mouth; recovered (? recurred). Hueter—Sarcoma of tonsil; death in 3 weeks, from pneumonia. Hahn—Removal of epiglottis; recurrence in 3 months (referred to by Schötz in Centralblatt für Laryngologie," No. 6). Fischer (referred to by Keitel)—Tumour of whole posterior wall of pharynx; recovered. König—3 cases (referred to by Keitel): Recurrent carcinoma of posterior wall of pharynx; recovered. Carcinoma of tonsil extending on to pharynx; died from septic pneumonia. Carcinoma of tonsil; died from septic pneumonia. Billroth—Lympho-sarcoma of tonsil, very extensive, vagus divided; death from œdema of the lungs. Von Bergmann refers (Deutsche Medicinische Wochenschrift, 1883) to a case where he removed a large piece of the lower jaw, tonsil, and almost the whole of one side of the pharynx, but does not state result. Gallardo—Extirpation of cancerous tumour of palate and tonsil in a male aged 40; rapid recurrence in glands in one month.

TOTAL RESULTS.

[D = died. C = no recurrence for 3 years. R = recurred soon, and inoperable. H = healed, and well at last note more than 6 months after operation. H ? = healed, but no note later than 6 months after operation. R (good) = a long interval before recurrence. R (H) = recurred, operated and healed. R (H ?) = recurred, operated and healed, but no further notes.]

GROUP I.—Cases where the disease was removed from the mouth, with or without splitting the cheek, and with or without tracheotomy; where, in fact, there was no wound in the neck communicating with the mouth—

α. Carcinomata, 13 cases—2 D, 4 H ?, 1 R (good), 3 H, 3 C.

β. Sarcomata, 10 cases—5 R, 3 R (good), 2 R (H).

Total 23 cases—2 D, 4 H ?, 5 R, 4 R (good), 2 R (H), 3 H, 3 C.

Mortality, 8·6 per cent.; no benefit, 30 per cent.; benefit, 25 per cent.; cured, 13 per cent.

GROUP II.—Cases of disease in the pharynx where the internal wound communicated with a wound in the neck—

A. Where the disease was situated in or in the vicinity of the tonsils, and extended thence to the neighbouring parts.

1. Where the jaw was not divided—

a. No tracheotomy.

α. Carcinomata, 6 cases—2 D, 2 R, 1 R (H ?), 1 H.

β. Sarcomata, 5 cases—2 H ?, 1 R, 1 R (H), 1 H.

Total, 11 cases—2 D, 2 H ?, 3 R, 1 R (H ?), 1 R (H), 2 H.

b. Tracheotomy.

α. Carcinomata, 9 cases—5 D, 1 H ?, 3 R.

Total where jaw was not divided—

α. Carcinomata, 15 cases—7 D, 1 H ?, 5 R, 1 R (H ?), 1 H.

β. Sarcomata, 5 cases—2 H ?, 1 R, 1 R (H), 1 H.

Total, 20 cases—7 D, 3 H ?, 6 R, 1 R (H), 1 R (H ?), 2 H.

Mortality, 35 per cent.; no benefit, 65 per cent.; benefit, 15 per cent.

2. Where the jaw was divided—

a. No tracheotomy.

α. Carcinomata, 20 cases—4 D, 7 H ?, 7 R, 1 R (good), 1 H.

β. Sarcomata, 5 cases—1 D, 1 R, 1 R (H ?), 2 H.

Total, 25 cases—5 D, 7 H ?, 8 R, 1 R (H ?), 1 R (good), 3 H.

b. Tracheotomy.

α. Carcinomata, 16 cases—5 D, 3 H ?, 4 R, 2 R (H ?), 1 R (C), 1 H.

β. Sarcomata, 9 cases—3 D, 3 H ?, 2 R, 1 h.

Total, 25 cases—8 D, 6 H ?, 6 R, 2 (H ?), 1 R (C), 2 H.

Total where jaw was divided—

α. Carcinomata, 36 cases—9 D, 10 H ?, 11 R, 2 R (H ?), 1 R (good), 1 R (C), 2 H.

β. Sarcomata, 14 cases—4 D, 13 H ?, 3 R, 1 R (H ?), 3 H.

Total, 50 cases—13 D, 13 H ?, 14 R, 3 R (H ?), 1 R (good), 1 R (C), 5 H.

Mortality, 26 per cent.; no benefit, 54 per cent.; benefit, 14 per cent.

Mortality where no tracheotomy = 19 per cent.; where tracheotomy = 38 per cent.

Total results of Group II., A.—

α. Carcinomata, 51 cases—16 D, 11 H ?, 16 R, 3 R (H ?), 1 R (good), 1 R (C), 3 H.

β. Sarcomata, 19 cases—4 D, 5 H ?, 4 R, 1 R (H ?), 1 R (H), 4 H.

Total, 70 cases—20 D, 16 H ?, 20 R, 4 R (H ?), 1 R (H), 1 R (good), 1 R (C), 7 H.

Mortality, 28 per cent.; no benefit, 57 per cent.; benefit, 14 per cent.

B. Where the pharyngeal disease was at a lower level than the tonsillar region, or at any rate did not involve it.

α. Carcinomata, 9 cases—4 d, 3 R, 1 H ?, 1 H.

β. Sarcomata, 6 cases—2 D, 2 H ?, 1 R (H ?), 1 H.

Total, 15 cases—6 D, 3 R, 3 H ?, 1 R (H), 2 H.

C. Where the epiglottis was the centre of the disease.

α. Carcinomata, 4 cases—1 D, 1 H ?, 2 R (good).

β. Sarcomata, 2 cases—2 H.

Total, 6 cases—1 D, 1 H ?, 2 R (good), 2 H.

Total result of Group II.—

α. Carcinomata, 64 cases—21 D, 13 H ?, 19 R, 3 R (H ?), 3 R (good) 1 R (C), 4 H.

Mortality, 32 per cent.; no benefit, 62 per cent.; benefit, 12 per cent.

β. Sarcomata, 27 cases—6 D, 7 H ?, 4 R, 2 R (H ?), 1 R (H), 7 H.

Mortality, 22 per cent.; no benefit, 37 per cent.; benefit, 29 per cent.

Total, 91 cases—27 D, 20 H ?, 23 R, 5 R (H ?), 3 R (good), 1 R (H), 1 R (C), 11 H.

Mortality, 29 per cent.; no benefit, 54 per cent.; benefit, 17 per cent.

GROUP III.—Where the disease involved both pharynx and larynx.

α. Carcinomata, 55 cases—30 D, 4 H ?, 14 R, 2 R (good), 1 H, 4 H (died without recurrence).

β. Sarcomata, 3 cases—2 D, 1 R.

Total, 58 cases—32 D, 4 H ?, 15 R, 2 R (good), 1 H, 4 H (died, well).

Mortality, 55 per cent.; no benefit, 81 per cent.; benefit, 12 per cent.

	Mortality. Per cent.	No benefit. Per cent.	Benefit. Per cent.
Group I.	8·6	30	52
Group II.	29	54	17
Group III.	55	81	12

The Goulstonian Lectures

ON

THE LIFE-HISTORY OF THE MALARIA GERM OUTSIDE THE HUMAN BODY.

Delivered before the Royal College of Physicians of London,

BY PATRICK MANSON, M.D. ABERD., F.R.C.P. LOND.,

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LECTURE I.

Delivered on March 10th, 1896.

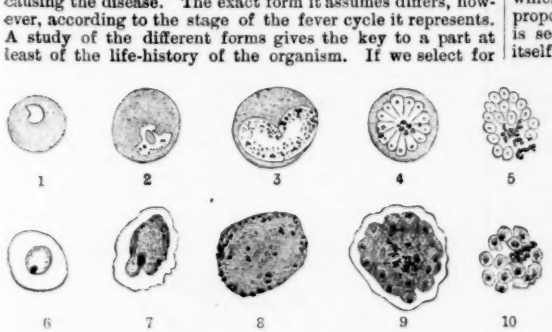
DISCOVERY OF THE MALARIAL PARASITE.

GENTLEMEN,—In his Croonian Lectures on the Climate and Fevers of India delivered before this College in March, 1882, Sir Joseph Fayrer, after briefly alluding to Laveran's then very recent discovery of a parasitic organism in the blood of the subjects of malaria, said: "We seem to be on the threshold of the discovery of unknown and almost unsuspected disease causes, and must watch the progress of investigation with great interest." Except by a very few, this great discovery was for years almost unnoticed. Laveran until lately, received little encouragement even from his own countrymen. For example, Corre a leading authority in France on tropical disease, writing in 1887, hardly mentioned Laveran's work; Kelsch and Kiener also, whose studies in malarial pathology are amongst the most careful and profound we possess, in their book *Traité des Maladies des Pays Chauds*, published so recently as 1889, did very scant justice to their compatriot, whose work they almost ignored. By degrees, however, Laveran's views gained ground. Richard in Algiers, Carter in India, Osler in America, Marchiafava in Italy, endorsed most of his statements, and when finally Golgi pointed out the very definite relation existing between the biological cycle of the parasite and the clinical phenomena of the fever cycle, the discovery was thoroughly established.

My purpose on the present occasion is to endeavour to throw some fresh light on the life-history of the malaria parasite outside the human body. I shall speak of the parasite as the plasmodium malariæ or the plasmodium—useful, though zoologically not very accurate terms.

THE MALARIAL PARASITE WITHIN THE HUMAN BODY.

If in a case of benign tertian ague we examine with the microscope blood procured from the finger in the usual way, it is not very difficult as a rule to see the parasite which is causing the disease. The exact form it assumes differs, however, according to the stage of the fever cycle it represents. A study of the different forms gives the key to a part at least of the life-history of the organism. If we select for our examination blood procured during the state of rigor, or during an hour or two preceding the rigor, when the thermometer is gradually rising, we shall probably encounter a number of pale, morula-like bodies made up of some twelve to twenty spherules heaped together round one or two clumps of black pigment grains (Fig. 4). This morula-like body evidently lies inside a blood corpuscle, for very often we can make out that it is surrounded by a narrow, washed-out-looking rim of hæmoglobin. If, now, we stain these bodies, we can see that each of the little spherules constituting the morula-like mass consists of a deeply-stained nucleolus surrounded by a covering of more lightly-stained protoplasm (Fig. 9). In the same slide we may see similar bodies, but without the surrounding zone of hæmoglobin (Figs. 5 and 10); evidently these latter have escaped somehow from the blood corpuscles they had originally occupied. They appear to be falling to pieces; the little spherules no longer cling together and closely surround the pigment clump; they are scattered about irregularly, each spherule being independent of the other. In the same slide we may encounter individual spherules, which, so far as we can see, belong to no particular cluster system, being quite isolated and floating about in the liquor sanguinis. Further, we can perceive in or on certain of the blood corpuscles minute pale spots, which on careful scrutiny are seen to indulge in more or less active amœboid movement (Fig. 1). If, now, we stain these epi- or intra-corpuscular little bodies—say with methylene blue—they, too, are found to be made up of a deeply-stained nucleolus lying somewhat eccentrically in a larger circular unstained area—a nucleus which has come into view for the first time, the whole being surrounded by a narrow rim of lightly-stained protoplasm. These stained circlets look like tiny signet rings stuck on to the corpuscles (Fig. 6). If we wait for some hours and again examine the blood, we no longer find the pale, morula-like, pigment-enclosing bodies, no scattered spherules, no minute pale specks on the corpuscles; but we see in a proportion of the corpuscles actively moving, pale, amœboid bodies of some size, bodies which incessantly change their forms and keep pushing out pseudopodia, after the manner of amœbæ, into the surrounding hæmoglobin. Manifestly these amœboid bodies lie inside the blood corpuscles. On staining them we again recognise the eccentrically-placed nucleolus, the unstained vesicular nucleus, and the lightly-stained surrounding protoplasm, the latter having now very much increased in actual and relative size. An examination of the blood made several hours later reveals in a proportion of the corpuscles similar but larger pale amœboid bodies. And now a new feature has developed; each amœboid body carries one or more grains of an intensely black, or very dark, fiery-red pigment, which, if you carefully watch, is seen to be constantly changing its position (Fig. 2). Staining still shows the vesicular nucleus, the deeply-stained nucleolus, now larger and less distinct, and the lighter surrounding protoplasm (Fig. 7). If we examine the blood again a few hours before the next paroxysm of ague is due these pale bodies, now no longer actively amœboid, are seen to fill or nearly fill the corpuscles they occupy, and the pigment granules they contain are found to be coarser and more numerous, and hardly, or only very slowly, change their position (Fig. 3). On staining we can no longer bring out a nucleolus; the vesicular nucleus, too, is less distinct, and the now relatively abundant pigment is scattered through the lightly-stained protoplasm which constitutes the entire bulk of the body (Fig. 8). In a proportion of the parasites, for such they are, the pigment is seen to be collecting into little groups, or arranging itself in radiating lines, or becoming massed in a central clump. If these are stained neither nucleolus nor nucleus can be made out, both having become diffused, as it were, throughout the entire mass of the parasite. If we repeat the examination just before or at the time of rigor we again encounter the morula-like clusters of spherules already described and which we encountered at our first examination.



If we repeat our examinations, continuing to make them through a series of fever cycles, we shall find the same procession of forms occurring in the same order; and we conclude that the large pigmented intra-corpuscular body is the mature animal prepared for sporulation, the morula-like mass is the same with the sporules formed, and that the spherules into which it breaks up on leaving the blood corpuscle are spores. These spores, on becoming free, attach themselves to red blood corpuscles, enter the red blood corpuscles, and begin to grow at the expense of the hæmoglobin, which they convert into their proper tissue and into the black pigment which must be regarded as a sort of excrementitious product of the parasite's digestion. In about forty-eight hours they have attained their maximum growth and prepare for sporulation

the nucleus and nucleolus becoming diffused through the protoplasm. Presently the nucleolar matter collects at a number of points, and around these points the protoplasm arranges itself in the little spherules forming the elements of the morula mass, each little spherule or spore being the rudiment of the new being into which it may develop on the bursting up of the morula mass at the termination of the cycle. Although there may be differences of opinion on some minor points, pathologists and biologists in the main agree that this is substantially the history of the benign tertian parasite in human blood, and that the same account practically applies to all the malaria parasites.

[Dr. Manson here remarked that we have no explanation of the occasional latency, exhibited both by the parasite and by the clinical symptoms, which is so striking a feature in certain cases of malarial infection. He continued:—]

LIFE-HISTORY OF THE MALARIAL PARASITE OUTSIDE THE HUMAN BODY: METHODS OF INVESTIGATION.

That this parasite, like all parasites, comes from without is certain. It is equally certain that in natural conditions it does not pass, like the germ of small-pox or the germ of measles, directly from one human being to another. There is abundant evidence to show that it does exist outside the body and independently of man; but, over and above this, there is ample evidence to prove that it can also multiply there, and multiply there indefinitely. There are two ways of searching for the extra-corporeal malaria germ: First, to grope about in external nature in a more or less blind way, trying to find some form which might be supposed to be the object sought for; secondly, to assume that the malaria parasite as found in the blood of man is present there as a normal circumstance in its life-history and to follow it out of the human body, tracing it into and through outer nature back to man again. By following the first very fallacious, very unpromising method of investigation many false hopes have been raised, but raised only to be very speedily dashed to pieces. Thus, not to mention many others, Massy's microscopic fungus, Salisbury's famous palmella, Balæstra's alga, Schurtz's oscillaria, and, latest of all, Klebs and Tommasi Crudelli's bacillus malariæ were all put forward as the malaria germ; each in turn held the field for a time, but only to be abandoned for some equally worthless successor. This being so, the only other hopeful method of arriving at a more complete knowledge of the life history of this important parasite is to seek for its extra-corporeal form in the second way I mention.

The plasmodium certainly is not driven to enter man for the reason that man is in any way necessary for its existence as a species. We know that malaria abounds where man is rarely or never seen—in tropical wildernesses; this could not be the case were man necessary for its development and multiplication. So far from man being necessary for the evolution of this parasite, if anything his presence is inimical to it; in towns and other places, where men congregate, malaria is infinitely rarer than in the open country, where man is a comparatively insignificant feature. We are, therefore, forced to conclude that when the parasite does enter man, it does so as finding in him a suitable alternative host from whom it can escape and extend as a species, that man is only one of the media in which this parasite can exist, and that there is a reciprocity as regards it between him and those other external media or medium. The plasmodium is a true parasite of man, not merely an accidental parasitic visitor. The individual plasmodium gets into man designedly, and, this being so, we may be quite sure that just as provision is made in its economy for a passage into the human body, so provision is made in its economy for a passage out of the human body. Such a provision is absolutely necessary for all true parasites; otherwise, were this not the case, the extinction of the parasite, not merely as an individual but as a species, would be inevitable on the occurrence of the death of the host. There are certain well-known facts about the plasmodium which seem to me to indicate very distinctly the character of the provision we seek for.

THE FLAGELLATED BODY: FIRST EXTRA-CORPOREAL PHASE.

If we look at our slides of malarial blood some fifteen or twenty minutes, or longer perhaps, after they have been mounted, another body, whose appearances we had not remarked before, not infrequently comes into view. This is called the flagellated body (Fig. 11—3, 6, and 12). It is a strange, weird-looking, octopus-like creature, with long, whirling, curling, lashing, tentacle-like arms attached to a central, somewhat spherical, mass, in which are black melanin particles tumbling about in a state of continual agitation. If we keep on watching this body we sometimes see one or more of the tentacle-like arms break away and swim about in the liquor sanguinis with a spirillum-like movement. This peculiar looking flagellated body is certainly not present, or at least is not visible, in our slides immediately after they are prepared. It appears only after they have been put up for some time, that is to say, after the blood has left the vessels. It is, therefore, not a feature of the intra-corporeal parasite. At certain

FIG. 11.

Evolution of the flagellated body in the tertian 1—3, quartan 4–6, and crescent-forming 7—12 parasites. (Compiled from Thayer and Hewetson.)

times in ordinary tertians and quartans, if we examine the blood with the microscope, we will find that though most of the large intra-corpuscular bodies have disappeared—doubtless having been resolved in the course of their development into sporulating forms and dispersed as spores—a few

large, pigmented, passive, intra-corpuscular forms still remain (Fig. 11—1 and 4). We may also see a few large spherical bodies which are not inclosed in red blood corpuscles (Fig. 11—2 and 5). If we select one of the former and watch it carefully, and if we are lucky, we may see it escape from the including corpuscle and assume the appearance of the other form—the free spherical body. From this we may conclude that the free spherical body originates from the intra-corpuscular body—that they are escaped intra-corpuscular bodies. If we keep on watching and fortune favours, we may after a time see the pigment in the free spherical body become violently agitated, the body itself become contorted and jerked about, and then suddenly we may see long flagella projected from its circumference and begin waving about. A flagellated body is formed (Fig. 11—3 and 6). If we prepare dozens of slides from the same patient's blood by rapidly drying and fixing the blood as soon as it is spread upon the slide in not one of those rapidly fixed preparations will we be able to find a free extra-corpuscular parasite, much less a flagellated organism, proving that the flagellated body does not exist as such in the circulation, but is formed only after the blood has left the vessels.

If we examine with the microscope the blood of a malarial patient who has been suffering for some time from one of the malignant forms of the infection—what has been incorrectly called æstivo-autumnal fever—in addition to those forms of the parasite already described as being devoted to intra-corporeal reproduction, we may see what is known as the "crescent body" (Fig. 11—7). This is a crescent-shaped parasite lying inside a blood corpuscle whose hæmoglobin it has evidently devoured. By careful looking one can make out as a delicate bow running between the horns of the crescent the shell, as it were, of the blood corpuscle inside which the parasite developed and is still lying. Keep one of these crescent bodies under observation. Presently, if you are lucky, or better still if you multiply your chances of success by keeping half-a-dozen crescents under as many microscopes, you will see the crescent slowly change its form. First it becomes stouter as it were, the ends rounding off more and the body becoming thicker (Fig. 11—8). Next it loses all appearance of being a crescent and becomes ellipsoid (Fig. 11—9). Then slowly the ellipsoid changes into a perfect sphere (Fig. 11—10). In the crescent there is always a mass of motionless pigment granules about its centre. During the change of form described this mass of pigment still remains passive and central. The sphere once formed, however, a change occurs in this respect, the pigment granules beginning to move, at first slowly, but presently more actively, dancing about in the most energetic manner in the centre of the parasite. By-and-by, their agitation increasing, they burst through what I take to be the delicate membrane hitherto enclosing them. The pigment now becomes diffused throughout the entire mass of the sphere, and continues to indulge in violent boiling-like movement (Fig. 11—11). At the same time the sphere itself becomes agitated—excited, as it were—changes form, writhes, is jerked violently about by some unseen force, and then suddenly flagella are projected from its circumference (Fig. 11—12), just as already described in the case of the free spheres of the quartan and the benign tertian parasite. That these ellipsoidal and spherical forms do not exist as such in the circulating blood may be proved, as in the case of the tertian and quartan plasmodium, by fixing the blood immediately on its removal from the body; on such slides—even although wet slides prepared simultaneously may exhibit crescents, ellipsoids, and spheres—we never find the two latter forms, but only crescents, and, of course, should fever be present or imminent the usual intra-corpuscular forms of the plasmodium. This transformation of the crescent into the flagellate body is a very striking phenomenon and must be referred to one of two things. Either it is a degenerative change in a dying or dead parasite or it is a vital evolutionary change—a normal step in the life of the parasite. My conviction is that it is the latter, and that the flagellated body is the first phase of the extra-corporeal plasmodium.

THE FLAGELLATED BODY NOT A DEGENERATED PLASMODIUM.

I know, however, that many good authorities, including biologists and pathologists of the highest standing—such as Blanchard, Labbé, Grassi, Marchiafava, Bignami, Golgi, and others—take an opposite view; but I humbly submit that their views are based on altogether insufficient grounds. The advocates of the degeneration hypothesis point to the fact that these flagellated bodies do not appear until the parasite is out of the body, and therefore they say they must be degenerations, seeing that they develop in what the degenerationists choose to regard as conditions unfavourable to life. But I would submit the flagellated body does not come into being until it is out of the body, because it is of no use inside the body, its function lying outside the body. It appears, or rather develops, only where and when it is wanted. The degenerationists say that the parasite is killed by the relative coolness of the microscope slip and concurrent changes in the blood; that its contortions and wriggling flagella are but its death throes; that the agitated movements of the pigment in the spherical body from which the flagella spring are but brownian movements of dead matter. I say the parasite undergoes a developmental change in consequence of being placed in the conditions which are favourable, and not only favourable but necessary, for its development, a temperature considerably below that of the human body, perhaps, being one of them; and that the movements of the pigment are, if they are carefully watched, far too gross and irregular to be of the nature of the molecular motion of dead particles. There are forms of protoplasm, animal and vegetable, whose developments are repressed by a higher temperature and encouraged by a lower. Even in the case of this same malaria parasite a temperature lower than that of the human body is conducive to its interests, seeing that it flourishes outside the human body at ordinary atmospheric temperatures, and flourishes in these conditions probably to a far greater extent than it does inside the human body. The degenerationists say that only a small proportion of the large free spherical bodies of the quartan and benign tertian parasites and of the crescent-forming parasites proceed to flagellation and that therefore the occurrence of this appearance is exceptional, a mere accident. I hold that the conditions under which our observations are made—that is to say, on our microscope slips—are altogether abnormal and unnatural. I shall show that under more natural conditions flagellation occurs in the case of by far the largest number of crescents; that on the glass the conditions for development are so unfavourable that some crescents never change form; others cease to change on reaching the ellipsoidal stage; others get to the spherical stage and there stop. The fact that under conditions so abnormal as a glass slip affords, and while they are being compressed under a cover-glass, some crescents do manage to pass to flagellation indicates, to my mind that the disposition on the part of the crescent to metamorphose is very strong indeed, and that under natural conditions probably nearly all crescents will do so. The degenerationists say that flagellated bodies are found only in a relatively small number of cases of malarial infection, and that therefore they cannot be a regular and necessary feature of the parasite. Mannaberg says—and so far as my experience goes I can endorse his statement—that provided we examine a case of malarial infection often enough and long enough, we will in every instance encounter the flagellated body. It certainly occurs in all types of malaria—in quartan, tertian, and æstivo-autumnal. Therefore I hold that at some time or other flagellation is a feature in every set of malaria parasites, a regular and normal occurrence, and not irregular, capricious, exceptional, and therefore unnecessary. The degenerationists say that the evolution of the flagella is too rapidly carried through to be a developmental process. I would answer that the appearance of flagella is not, strictly speaking, a developmental process; the flagella are probably pre-existent in the sphere, perhaps, for all we know, in the crescent; their sudden appearance is rather an act of birth than of development, and we know that the act of birth is in most organisms a violent and precipitate process. A full account of all that has been advanced on this point would occupy too much space. An admirable summary of the arguments on both sides will be found in Thayer and Hewetson's article on the Malarial Fevers of Baltimore, in the fifth volume of the "Johns Hopkins Hospital Reports, 1895," to which I would refer you. Laveran, Mannaberg, Danilewsky, Dock, Coronado, and others are, all of them, opposed to the degeneration theory of the flagellates.

FUNCTION OF THE FLAGELLATED BODY.

Admitting, then, that the flagellated body is a living thing, a phase of the parasite, how may we explain its object? Something has diverted these particular plasmodia from ordinary sporulation. What that something is I do not

pretend to say, any more than the biologist can pretend to say what it is that turns one embryo into a male and another embryo into a female in other departments of Nature. Had the plasmodium gone on to sporulation in the ordinary way the peripheral portion of its body would have resolved into the ordinary intra-corporeal spores, and the pigmented centre would have been discarded as residual matter; but, being diverted from sporulating in this way by some occult cause, the peripheral portion of the organism is converted into flagellated spores, the central portion remaining as dead residual matter. The flagellated plasmodium I therefore regard as a sporulating plasmodium whose spores, for certain reasons in the interests of the extra-corporeal parasite, assume a flagellate form.

This view is strongly supported by what one sometimes sees in those spheres which stop short of flagellation. The accompanying is a sketch (Fig. 12) of one of these abortive

FIG. 12

crescent-derived spheres from a case of æstivo-autumnal fever. It represents a very definite body. Originally a crescent-derived sphere which, failing to project flagella, gradually developed a ring of pale, spore-like spheres in what is usually the clear zone around the central circle of pigment. The matrix in which the clear spore-like bodies were located had a slightly brownish tinge, and so showed up these minute bodies with great distinctness. When perfect, the little spherules numbered about fourteen. After a short time they gradually merged into one another, the septum between them disappearing as if from degeneration. Does not this arrangement of spherules recall the rosette body of the ordinary sporulating plasmodium? And does it not suggest by the fact that it occurred in a crescent-derived sphere that this ring of spherules was a ring of coiled-up flagellated spores which, failing to erupt in the usual way, underwent some molecular or degenerative change which by slightly altering their refraction rendered them visible?

I conclude, then, that the crescent body, and the tertian and quartan spherical bodies which proceed to flagellation, are the extra-corporeal sporulating homologues of the intra-corporeal sporulating bodies; that the flagellum is the extra-corporeal homologue of the intra-corporeal spore. Both types of sporulating plasmodium have corresponding functions, both arise from the same source; one is the germ of the plasmodium inside the human body, the other is the germ of the plasmodium outside the human body; both function in the propagation of the parasite. Such is my view of the nature and significance of the flagellated phase of the malaria parasite and such are some of my reasons for entertaining this view. In the following lectures I propose to point out how under natural conditions the potential flagellated plasmodial spore leaves the human body and why this extra-corporeal plasmodial spore is flagellated. I shall then try to follow the parasite a little farther and endeavour to indicate what I cannot but regard as part at least of the extra-corporeal life of the plasmodium malariæ.

THE annual general meeting of governors of the Dental Hospital of London was held at the hospital on March 12th, Mr. F. A. Bevan, one of the trustees of the hospital, being in the chair.

THE ATTACK ON A MEDICAL PRACTITIONER AT RETFORD. — At the Nottinghamshire Assizes last week, before Mr. Justice Hawkins, George Mycroft, twenty-four, a foundry hand, was charged with unlawfully wounding Dr. Charles Westbrook at Retford on Jan. 18th. It will be remembered that Dr. Westbrook was attacked whilst helping the police to get a prisoner to the lock-up, and was severely injured about the head, being confined to his bed for ten days. Evidence for the prosecution went to show that Mycroft struck the blow, but the defence was that this was not reliable. Prisoner was found guilty and was sentenced to twelve months' hard labour, the judge stating that if Dr. Westbrook had died it would have been a clear case of murder.

The Milroy Lectures

ON

THE VALUE OF ISOLATION AND ITS DIFFICULTIES.

Delivered before the Royal College of Physicians of London

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LECTURE III.[1]

Delivered on March 5th, 1896.

MR. PRESIDENT AND GENTLEMEN,—Typhus fever and small-pox afford examples of what may be accomplished by isolation along with the co-related measures of prevention. In what remains to be said of the value of isolation it is impossible to offer evidence as convincing, for the reason that other diseases, principally affecting children, have never as yet received the same amount of attention from public authorities. That which enables preventive measures to be carried out vigorously in the case of either typhus fever or small-pox is the fact that they may frequently strike down men in their prime. They consequently inspire fear among those who directly influence authorities, thus stimulating them to action. Neither whooping-cough, nor measles, nor scarlet fever, nor even diphtheria can give rise to panic such as that which immediately arises when the lives of bread-winners are specially endangered. This is the central fact we have to bear in mind when we come to consider the evidence respecting the advantages derived from such measures for controlling the prevalence of these last-named diseases as experience shows to be administratively possible. The disease of which we have had the most experience is scarlet fever. For the purposes of this lecture I have had charts prepared which show the prevalence of this disease in London and in the large towns of England generally. The experiences of London ought to be particularly instructive. The history of scarlet fever is, of course, not so dramatic (if I may so use the word) as that of the other two diseases. The death-rate has fallen very decidedly, as will be seen from the accompanying mortality chart. But the fall might have been greater, taking into account the largely increasing proportion of cases isolated at hospitals. The following table shows the annual death-rates per million for the last few years—namely, 1891, 1892, 1893, 1894, and 1895—as compared with those for previous periods.

Year.	Deaths.	Year.	Deaths.
1861–70	1133	1892	273
1871–80	600	1893	369
1881–90	330	1894	220
1891	142	1895	189

It will be noted that there was a very remarkable improvement shown during the decades 1871–80 and 1881–90, as compared with the period 1861–70, which may be described as the pre-isolation period. We are, therefore, justified in concluding that isolation has exercised a very great influence, but taking the experience of the last four years the history of scarlet fever would appear to be not altogether satisfactory. There was a rise in 1893 to 369. This was followed by a fall in 1894 to 220, and that has been followed by another fall in 1895 to 189. Scarlet fever is well known to be subject to cyclical fluctuations, and, therefore, the period would be considered too short to permit of definite conclusions. But it hardly looks as if scarlet fever were going to prove much less fatal in the decade 1891–1900, when over 60 per cent. of the cases are isolated, than in 1881–90, when less than half that proportion was so treated, so that it would appear that isolation under present conditions is not quite so efficacious in controlling scarlet fever as might have been hoped. At the same time the facts and figures show that the disease may be remarkably

[1] Lectures I. and II. appeared in THE LANCET of March 7th, 1896.

influenced by isolation, although epidemic diffusion be not wholly prevented. In speaking of epidemic diffusion it must be remembered that the very fact of notification and removal to hospital and the attention which is consequently drawn to the subject give rise to the impression of the epidemic prevalence of the disease. I will repeat what I have already said as to the use of the term "epidemic." It is one which is essentially relative, and in the case of the endemic diseases its use and meaning vary according to the period of which we are speaking. Although it cannot be said to be actually "misapplied" to such increase or diffusion as takes place with endemic scarlet fever in the autumn of every year, yet it should be remembered that it is frequently applied to a proportion of deaths or cases of sickness which in former days would have been entirely unnoticed. The epidemic (so-called) of scarlet fever in London, which has quite lately received so much attention from the press, had it occurred in the period 1861-70 would certainly not have been spoken of as an epidemic, seeing that the prevalence of the disease shown by the death-rate was only about one-fourth of the average. What the statistics of London do show is that hospital isolation alone, even when applied to a very large proportion—nearly three-fourths of the cases—will not prevent a considerable spread of the disease. How is this to be accounted for? It may be that along with the growth of the hospital accommodation there has not been a corresponding improvement in co-related measures of precaution, such as, for example, the attention to details of disinfection and the precautions of which I gave examples in the case of small-pox. Such precautions would in a minor degree only be considered administratively possible, but undoubtedly they would tend greatly to enhance the value of isolation. Not the least of these is the prevention of infection through schools, a subject which is only just beginning to receive due attention. It is possible, too, that in London the severance of the hospital authority from the sanitary authority is not without disadvantages, as I have elsewhere pointed out. There can be no doubt that among other disadvantages consequent on this division of authority is a want of discrimination in the class of cases for which hospital isolation is most important. On the other hand, in the large towns of England, with populations varying from 50,000 to 500,000, unity of administration *does* exist. But there also, for different reasons, although the value of isolation is sufficiently marked, there is an absence of dramatic evidence in its favour as shown by the mortality charts. This may be partly due to the fact that, although in such towns notification of scarlet fever has been in operation for several years, the hospital accommodation, even in many large towns, has been, and is still, of a very inferior character. So that no fair opportunity may be said to have been afforded of showing the full value of isolation as a means of preventing the epidemic diffusion of scarlet fever. The population of the metropolis and the large towns, the statistics of which are published by the Registrar-General weekly, constitutes about half that of the kingdom generally, and it is that half of the population which is more in need of hospital accommodation for scarlet fever on account of the ready communicability of the disease under the circumstances of town life. It may be urged that the proof of the efficacy of isolation for this vast population is not adequately shown in this way. For *pari passu* with the lowering of the mortality of scarlet fever we have clear evidence of a diminished fatality and a lessened morbidity of the disease. So far as the statistics of the hospitals go they show a lessened case-mortality. This diminution of the case-mortality may obviously be explained in three different ways. It may be that there are great advantages in hospital treatment; it may be that cases admitted to hospital since the Notification Act has come into operation now include many of a less severe type than those which formerly found their way to hospitals; or it may be that there is an altered type of the disease due to improved sanitary circumstances generally, both at home and in hospital. Probably these different agencies all exercise an influence; certainly there are districts in the county of Surrey, some with and some without hospital accommodation, in which the case-mortality of the disease is, as I have observed, now less than 1 per cent. The diminished case-mortality, however, strengthens the proof of the value of isolation in other ways. Thus, if it be taken that the reduction of the morbidity of the disease shown by the Asylums Board statistics is 50 per cent., a given death-rate to-day represents twice the prevalence that it would represent some fifteen years ago. In connexion with the sanitary requirements of the country population—that is, the population of the small towns and villages, the statistics of which are not given in the weekly returns of the Registrar-General—there is still very much to be accomplished. There is, however, some very valuable evidence bearing on the influence of notification and isolation upon scarlet fever afforded by the reports of some county authorities, notably that of Worcestershire and the district of which Mr. George H. Fosbroke has been the medical officer of health for some twenty years. In an interesting report lately published along with one by the medical officer for Derbyshire Mr. Fosbroke gives the following table of cases which have been removed to the hospitals of the various districts. He is one of the few medical officers of health who have had the opportunity of observing the effects of isolation for a long period of years. He is able to quote numbers of instances where scarlet fever has occurred in families under conditions in which the spread of the disease would in all human probability have taken place but for the removal of the case at the outset. He is able to show also how in certain places where districts have been without accommodation, alongside with those which have been provided with accommodation, the disease has spread in the former and not in the latter. A similar class of evidence is given by my friend and colleague, Mr. Jacob, and is quoted in the reports of the county of Surrey. Comparison is there made for several years of the proportion of cases to households invaded, with the result that generally speaking the figures were greatly in favour of the districts provided with hospitals when contrasted with those districts without hospital provision. Evidence of this kind is the only proof of success that can be adduced, and it is obviously open to the criticism that the non-occurrence of the outbreak is not of itself conclusive of the efficacy of the particular measures; such a criticism applies to all measures of prevention alike, but it is one that is specially likely to occur in the case of scarlet fever, the fluctuations of which are partly due to influences which may be described as seasonal and cyclical.

There is another influence at work the nature and extent of which still remain to be explained. I refer to the influence of locality which is felt in scarlet fever, although less so than in the case of some other diseases of the zymotic class. An epidemic of notable severity occurred several years ago in the town of Hull. It was believed that besides ordinary infection or contagion there was another factor in the spread of the disease principally concerned, possibly a condition of the soil itself, which, if not the controlling factor, may be intimately related to the disease prevalence. In this connexion it is interesting to note that in the city of Paris separate scarlet fever hospital accommodation is, according to writers on continental hygiene (Palmberg, Newsholme, and recently Legge), hardly considered necessary owing to the comparatively slight prevalence of the disease. What is the reason of this comparative immunity? Is it a question of race, habits, climate, or soil? Still more with diphtheria are we for the present at a loss to account for what may be termed local preferences on the part of diseases, albeit their infectiousness or contagiousness is an obvious fact. It is this mysterious influence which obscures the results of isolation. The various and varying prevalences of the disease in England I showed by means of maps at the Budapest Congress of International Hygiene. These maps and the statistics on which they are based I have brought up to date, and submit them for your consideration.

[Here Dr. Seaton exhibited the maps in question. He continued:—]

The study of local preferences of diseases here rather suggests that it is dependent upon the habits or customs of the people in a wider sense. But although we may not as yet be in a position to say what is the controlling factor of the disease, it is plain that school attendance does play a considerable part in determining local prevalence just as the absence of isolation and co-related measures favour the spread of scarlet fever. Very likely in both diphtheria and scarlet fever much of the good which might have been expected of isolation has been obscured by the uncontrolled operation of the Elementary Education Act. But as yet we have not sufficient data to enable us to separately estimate the various influences for and against the spread of these diseases. At the same time we must sorrowfully admit that the disease increases in spite of sanitary measures. So

again with measles, the notification and isolation of which have at various times been urged by experienced sanitarians (recently by Professor Wynter Blyth) we have yet much to learn from the preventive point of view. Edinburgh alone affords us any considerable experience of the efficiency of isolation. Dr. Littlejohn (who has followed the subject closely) writes to me that during 1895, 6940 cases were notified and there were 401 admissions to hospital. Isolation only takes place therefore in a small proportion of cases. Although notification with a small amount of hospital isolation has been carried out in this large city, the experiment can only be said to have been commenced. Edinburgh has initiated the system. If, as it is hoped, in the future its example be followed by several other large towns, we shall be able to see better how far hospital isolation and treatment are likely to diminish the mortality of measles. In estimating the value of isolation in this disease we shall not only have to remember those seasonal and cyclical periods of prevalence described by Dr. Whitelegge in his Milroy Lectures, but we must also take into account preferences of locality which show themselves also in this disease, which is well shown by a chart of comparative mortality in Shropshire and adjacent counties (the work of Mr. A. C. Waters.)

To return to Worcestershire and Warwickshire, one very important part of Mr. Fosbroke's report relates to the cases that have been removed for considerable distances to hospitals. He gives a table which relates altogether to 6 hospitals—viz., those of Alcester, Evesham, Kidderminster, King's Norton, Solihull, and Warwick. The total population for the purposes of which they serve is 183,000, and the periods to which these statistics relate date from as far back as 1875 in the case of Alcester. The total number of cases removed to the hospitals during those periods was 4484. All these cases are arranged in columns according to the distances from which they were removed to the several hospitals. In these districts it has been the custom for the medical adviser to state whether or not the patients are fit for removal, and upon that statement the ambulance is sent. Thoroughly good ambulance arrangements and provision are made. The proportion of cases that have been removed under—

1 mile was	361
1 to 2 miles...	610
2 to 3 ,, ...	1281
3 to 4 ,, ...	470
4 to 5 ,, ...	546
5 to 6 ,, ...	786
6 to 7 ,, ...	188
7 to 8 ,, ...	90
8 to 9 ,, ...	49
9 to 10 ,, ...	24
10 to 11 ,, ...	54
11 to 12 ,, ...	25

It will be seen, therefore, that as many as 240 patients have been removed distances of from seven to twelve miles. Mr. Fosbroke is very strongly of opinion that the removal of patients for this distance is not detrimental, provided, of course, that they are certified to be quite fit for removal when the ambulance is sent. In this opinion I concur, from my own observations of the effect of the removal of cases for considerable distances. These considerations are very important from the administrative point of view, inasmuch as one of the difficulties underlying isolation in country districts is the distance of removal.

THE DIFFICULTIES OF ISOLATION.

The limits of this short series of lectures do not readily allow of my discussing exhaustively and in logical order the various difficulties that have been found to attend the isolation system. It is, perhaps, hardly necessary I should do so, seeing that their nature is clearly indicated in that part of my subject which has been devoted to the value of isolation. First and foremost has been the growing dislike of landowners and householders to the propinquity of "infectious hospitals." The opposition to the establishment of small-pox hospitals has been most violent. It is true that a distinction is made by the Medical Department of the Local Government Board against the dangers which attend the isolation of small-pox on the one hand, or the isolation of scarlet fever, typhoid fever, or diphtheria on the other. Still it is probable that the fear engendered by the numerous reports which have been made of late years as to the dangers of hospitals has not been without its influence in increasing the opposition raised to their establishment or of "infectious hospitals" of any kind whatever. Certain it is that year by year the difficulties have increased to such an extent that some authorities after numerous attempts have felt inclined to abandon the project altogether. That such opposition should be kept within reasonable limits is a thing which authorities have a right to expect at the present day. In country districts the establishment of infectious hospitals is, I believe, practically without danger, and yet in some counties the attempts to provide them have been almost at a standstill. By far the worst difficulty is that to which Sir George Buchanan specially refers in the Government report of 1881: the "misfortunes," as they are termed, which have occurred from time to time within infectious hospitals—that is to say, the accidental infection of persons with another disease than that for which they were removed. This constitutes to my mind one of the gravest difficulties connected with the system of isolation. Unless its extent be fully appreciated and unless the directions of medical officers be loyally followed by hospital or sanitary authorities, the isolation system—a valuable auxiliary to our preventive forces—may be jeopardised. For administrative reasons there are strong inducements to relax stringent rules as to admission of different kinds of diseases when there are vacant beds. I feel it, therefore, my duty in these official lectures to emphatically declare that it is vital to the whole question of isolation following notification that such medical rules should be upheld. We have seen that the town of Leicester has suffered from failure to appreciate them, and within the last five years I regret to say I have witnessed two examples of the spread of disease within hospital walls, under circumstances as to which the authorities had already been duly warned. With the example that we have of the difficulties which have arisen in the administration of laws relating to another great preventive measure—viz., vaccination—we cannot, I think, too strongly insist upon the absolute necessity of making hospital isolation, practically speaking, free from any risk. In the case of country hospitals we must rely mainly on good administration. As regards small-pox it is absolutely essential that the disease should be treated in buildings quite apart from all other infectious diseases. In the case of the other diseases which are intercommunicable—for example, scarlet fever, typhoid fever, diphtheria, measles, and whooping-cough—the rule should be that not more than two diseases should be treated simultaneously even in well-constructed hospitals with good administration. In the case of the metropolis and very large towns it seems to me that the best policy is to insist upon separate hospitals for each of the principal diseases which the municipal authority is undertaking to isolate. Thus, for example, if the isolation of measles should be attempted, as I trust it will be, on a large scale, it should be attempted only under fairly favourable conditions, that is to say, where the patients treated run no risk whatever of receiving any other infection. Along with these precautions against the intercommunicability of infectious diseases experience dictates the absolute necessity of providing enough single-room accommodation to allow the doubtful cases, which must sometimes be sent to a hospital, to be kept under observation for a suitable time. The arrangements at New York seem to be typical of what is best in this direction. There the cases of a doubtful character are isolated for a short time in separate rooms on the mainland near to the point of debarkation. It is not until the nature of the disease is quite declared that they are drafted to the special hospitals which are situated on islands. Whereas in scarlet fever the presence of the disease excites no particular terror, there will always be some cases kept at home which constitute foci of infection. There is no power for their compulsory removal to hospital, nor is it desirable that there should be; but everything should be done by the authorities (without resort to extravagance) to render hospitals attractive. Hospitals built at non-epidemic periods when time can be given to the consideration of the various details as to site and construction so necessary to the complete success of a hospital for infectious diseases form a striking contrast to those which are erected in a hurried manner. Although in 1881 there were reported to be 296 authorities provided with so-called hospitals, it is plain that at that time there were comparatively few that answered to the requirements of the Local Government Board as set forth in a memorandum issued in 1868, reissued in 1892, and again in 1895, entitled "The Provision of Isolation Hospital Accommodation by Local Authorities." The following

extracts refer to some of the most essential points in the provision of such accommodation:—

"It cannot be too clearly understood that an isolation hospital, to fulfil its proper purpose of sanitary defence, ought to be in readiness beforehand, and during the progress of an epidemic it is of little avail to set about hospital construction. The mischief of allowing the infection to spread from first cases will already have been done, and this mischief cannot be repaired.

"Large villages and groups of adjacent villages will commonly require the same sort of provision as towns; where good roads and proper arrangements for the conveyance of the sick have been provided the best arrangement for village population is by a small building accessible from several villages.

"In towns hospital accommodation for infectious diseases is wanted more constantly as well as in larger amount than in villages, and in towns there is a greater probability that room will be wanted at the same time for two infectious diseases, which should be treated separately. For a town the hospital provision ought to consist of wards in one or more permanent buildings, with space enough for the erection of other wards, temporary or permanent. Considerations of intimate economy make it wise to have permanent buildings sufficient for somewhat more than the average necessities of the place, so that recourse to temporary extensions may less often be necessary. In any case, it is well to make the administrative offices somewhat in excess of the wants of the permanent wards, because thus at small additional first cost they will be ready to serve when occasion comes for the wants of temporary extensions.

"Speaking generally, it has been estimated that the provision of one bed per 1000 inhabitants is sufficient for the permanent requirements of a sanitary district, but such requirements will necessarily vary with the character of the population. Even in a locality where the population is well-to-do and most houses of a size and construction that offer reasonable facilities for the isolation of single attacks of the current infectious fevers, the amount of accommodation needed for public health purposes will be less than in a manufacturing or colliery district, where infectious disease cannot be treated in the houses where it breaks out without very great danger or certainty of its spreading.

Plans, copies of which I exhibit, accompany the memorandum of the Local Government Board, which relates chiefly to the construction of comparatively small hospitals, at the outside not more than twenty-five or thirty beds—that is to say, for populations of small towns or groups of villages. In the case of larger towns the same essential points have to be taken into consideration, and the plans which I am able to show you, some of which are taken from the well-known work by Messrs. Gordon Smith and Keith Young, in Stevenson and Murphy's "Hygiene," and others from the valuable paper on Fever Hospitals by Mr. W. Aldwinkle, given at the Royal Institute of British Architects about a year ago, will make it clear that the large hospitals such as those in and about the metropolis, and at Glasgow, Newcastle, Salford, Nottingham, and Derby, at Budapest, Berlin, and other great cities of the continent, consist mainly of a multiplication of blocks or pavilions, of which the small hospital may be said to be the unit. If time allowed it would be interesting to discuss the questions of detail which are not unimportant, as, for example, the desirability of having covered ways connecting the various blocks or pavilions. It would be especially interesting also to discuss the question of cost per bed, and the necessity or otherwise of certain structural arrangements such as those which frequently add to that cost. I must, however, in view of what I have still to say, confine myself entirely to questions of principle, leaving the details to be amplified at a subsequent period.

The administrative difficulties of providing what might be called a hospital for separate small village communities has already been adverted to in the memorandum of the Local Government Board. It was in view of these difficulties that Lord Thring in 1893 succeeded in carrying a very valuable measure, called the Isolation Hospitals Act. This Act was passed with a view to enable counties to form what is called "hospital districts" in any such extended areas as would be conducive generally to efficiency as well as economy. The Act would have been very much more efficacious but for its limitations; thus it does not apply at all to boroughs having a population of over 10,000 except with their consent. This is a considerable difficulty, and it arises from what is called the "spirit of local self-government," which, when it is allowed to come into play in the case of very small towns, is rather obstructive. Each authority, even in the matter of the provision of hospital accommodation, desires to be independent, but the gratification of this desire is apt to make hospital accommodation less efficacious or much more costly than might otherwise be the case in country districts. In the case of large towns the question of cost has not as yet assumed the proportions of a difficulty, except in the metropolis, where the estimated cost has, I am credibly informed, gradually risen to something like £500 per bed. I need not say that everything should be done to make hospitals attractive, but it is evident that there must be some limit to the cost entailed in the provision of hospitals if they are to be multiplied at the expense of the ratepayers. It has been estimated that in country districts an average cost of £200 to £250 per bed is a fair amount for the provision of the necessary accommodation. On the other hand, the trend of public opinion seems to be unmistakeably towards finding accommodation for sick persons, not necessarily paupers, who cannot be properly housed as sick persons should be, otherwise than at the public expense. It is this tendency in popular opinion that counterbalances the above considerations, inasmuch as it is very largely responsible for the development of our existing hospital system. Our own College had a large share in the initiation of a demand for better accommodation for the poorer classes. In the words of the celebrated memorial moved by Dr. Anstie in 1874: "Physicians are brought much into contact with the poorer classes of the population and are deeply interested in anything that concerns the welfare of these classes, not only on account of the poor themselves, but also because the evils engendered among them affect the whole of society. ... ... It is well known that overcrowding, especially in unwholesome and ill-constructed habitations, originates disease." Rate-supported infirmaries and hospitals (I do not speak at the moment only of hospitals for infectious diseases) for the benefit of those whose living accommodation is too confined when sickness appears in the household or family, are by some political economists regarded as a necessary result of the overcrowding of the population in large towns. It is from this point of view that the important subject of hospitals has lately been discussed. Mr. Gordon Smith and Mr. Keith Young, architects of great experience and ability, the former of whom has for many years been the responsible adviser of the Local Government Board on the question of by-laws, plans, and buildings, hospitals, &c., review the dwelling accommodation of the population of the United Kingdom. They show that with the great mass of the population of towns neither isolation nor decent nursing is possible. Hospitals are therefore the necessary offshoot of the dwelling. So also in country districts it is felt that hospitals are a necessity if the children of poor people are to have a fair chance of recovery from sickness. How impossible this must be under present conditions may be gathered from a recent report by the medical officer for Derbyshire (Dr. Sidney Barwise), who in writing about the progress made in hospital provision makes the following interesting and important statement:—"In 1879 296, or about one-fifth of the 1510 provincial sanitary authorities possessed some means of isolating cases of infectious disease, and that between that date and 1891 loans amounting to £448,769 had been granted to 100 authorities for the provision of isolation hospitals; so that in 1891 about 400 of the 1510 authorities had made provision for their district, but more than two-thirds were without any means of isolation whatever. In some parts of the country not even that proportion of authorities are provided. For instance, in Derbyshire, out of a population of 426,768, only one district—Buxton, with a population of 7500—has erected a permanent isolation hospital. That there is urgent need of them is apparent from the fact that over 5 per cent. of the tenements in the county have only two rooms, and between 10,000 and 11,000 families in the county occupy three rooms or less, so that the plea that there is not the necessity for isolation in country districts cannot for a moment be upheld." We are, however, very far as yet from having reached the stage at which the general right to free hospitals can be said to be established, but in connexion with isolation of infectious cases the problem may be said to have been worked out during the last twenty years. The infectious isolation hospitals of the metropolis and large towns are free to all cases; there is now no trace of the stigma of pauperism attached to their use; admission can be obtained for any sufferer, provided there is a bed to spare. The position of things has, therefore, undergone a wonderful change since 1872. The isolation hospital accommodation of this kind had only just been originated and was limited to some thousand beds for a population of three millions. It is calculated that the present hospital provision of this kind for the metropolis amounts to 6000 beds, considerably more than the one bed per thousand of the population which is laid down by the Local Government Board as the standard requirement. With the multiplication of hospitals due to the development of the isolation system, and especially stimulated by the introduction of the Notification Act in 1889, there has been a gradual disappearance of

the signs of a pauper character attaching to the institutions. These have been replaced by the characteristics which distinguish our great voluntary hospitals, not the least important of which is the admission of students, who have the opportunity of regular courses of instruction in the hospital wards. In bringing about these great changes the Royal College of Physicians of London and the Metropolitan Society of Medical Officers of Health had a large share.

In these lectures which I have had the honour to deliver before you I have endeavoured to describe impartially the evidence relating to the value of isolation and at the same time to fairly represent its difficulties. If the country generally should follow the example of the metropolis in respect of hospital provision, especially for infectious diseases, the isolation of which is, I believe, important to the public health, it will surely be spending money wisely and well. The evidence that I have submitted to you in the course of these lectures shows unmistakably that the lives of bread-winners depend on this new method of insurance; it shows also that the health and strength of the rising generation must also in large measure depend on the facilities for complete recovery which, in the case of the vast mass of the population, hospitals can alone afford. Human life is the most valuable of property. It is for "Medicine" to say how it may be preserved in "public" as well as "private" affairs of health. As I commenced these lectures by referring to the physician's influence and work in the politics of health I will now conclude by quoting the words of a master on the subject: "For the further development of our sanitary institutions and their working the educational onward influences may be expected to come from the members of the medical profession, and are perhaps not in any essential sense to be expected largely except from them. This is not meant only with regard to the abstract science of the matter, but equally with regard to administration. Regarding the science it has long been evident that, for such new researches and observations as will supply increase to the body of exact knowledge on which the prevention of disease depends, the world cannot expect much help except from the work of the medical profession, and the same is now constantly becoming more and more clear in regard of Public Sanitary Administration."[2]

A CASE OF DIFFUSE PHLEGMONOUS GASTRITIS.

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CASES of purulent inflammatory infiltration of the walls of the stomach have been described under a number of different names, amongst which may be mentioned gastritis mycotica, gastritis bacillaris, gastritis submucosa, gastritis phlegmonosa, gastritis purulenta, interstitial purulent gastritis, and diffuse phlegmon of the stomach. A condition of purulent inflammation of the walls of the stomach, although of undoubted rarity, was not altogether overlooked by those we now are accustomed to speak of as "the older pathologists."[1] As far back as the seventeenth century references are to be found chiefly in the writings of Varandœus,[2] Borel,[3] Sand,[4] Vorwaltner,[5] and Bonet.[6] In more recent years the condition has received more or less attention from such observers as Andral,[7] Auvray,[8] Bamberger,[9] Dittrich,[10] Fagge,[11] Habershon,[12] Klebs,[13] Krause,[14] Laboulbene,[15] Leube,[16] Lowenstein,[17] Luton,[18] Martin,[19] Mascaret,[20] Maunoury,[21] Mayer,[22] Mazet,[23] Moxon,[24] Raynaud,[25] Sestier,[26] Strumpell,[27] Tüngel,[28] Whipham,[29] and Ziegler.[30] The admirable papers by Raynaud, Leube, and Whipham may be specially noted, as they are readily accessible in most medical libraries. In addition to the above-mentioned authors, most of whom either give cases of their own or refer to already recorded examples, the following have recorded cases:—Ackermann,[31] Asverus,[32] Beckler,[33] Belfrage,[34] Bianchetti,[35] Chvostek,[36] Deininger,[37] Dirner,[38] Ferraresi,[39] Fontain,[40] Fraenkel,[41] Gaudy,[42] Gläser,[43] Glax,[44] Guyot,[45] Hun,[46] Key and Malmsten,[47] Lewandowsky,[48] Lewin,[49] Ödmansson,[50] Petersen,[51] and Treuberg.[52] Only a few examples of phlegmonous gastritis have been recorded in this country, the more important being those published by Fagge,[53] Habershon,[54] Macleod,[55] Page,[56]

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[2] Vide English Sanitary Institutions, John Simon, p. 473.

[1] Many interesting references to the early writers on phlegmonous gastritis are given by Raynaud (Gazette Hebdomadaire de Médecine et de Chirurgie, 1861, p. 511), and Leube (Ziemssen's Cyclopædia, vol. vii., p. 154.

[2] Varandœus: Tractatus de Morbis Ventriculi. 1620.

[3] Borel (Pierre): Opera. 1656.

[4] Sand: Dissertatio de raro Ventriculi Abscessu. 1701.

[5] Vorwaltner: Eph. Nat. cur. Dec. III., Obs. 142.

[6] Bonet: Sepulchretum Anatomicum. 1700.

[7] Andral (G.): Clinique Médicale. II. Maladies de l'Abdomen. 1839.

[8] Auvray: Étude sur la Gastrite Phlegmoneuse. Thèse de Paris. 1866.

[9] Bamberger: Krankheiten des Chylopoetischen System; Virchow's Handbuch, p. 260. Quoted by Fagge; Transactions of the Pathological Society of London, vol. xxvi.

[10] Dittrich: Quoted by Leube. Ziemssen's Cyclopædia, English Edition.

[11] Fagge: Fagge and Pye-Smith's System of Medicine.

[12] Habershon: Diseases of the Abdomen, fourth edition, p. 163.

[13] Klebs: Allgemeine Pathologie, 1887, Band i., p. 206.

[14] Krause: Ueber sub-mucöse phlegmonoseitrige Magenentzündung. Berlin, 1872.

[15] Laboulbene: Anatomische Pathologie, 1879, p. 107.

[16] Leube: Ziemssen's Cyclopædia, vol. vii., pp. 154–163.

[17] Löwenstein (M.): Ueber Gastritis Phlegmonosa. Kiel, 1874.

[18] Luton (A.): Dictionnaire de Médecine Pratique, vol. xiv., 1871, p. 197.

[19] Martin (Sidney): Functional and Organic Diseases of the Stomach, 1895, p. 277.

[20] Mascaret: Bulletin de la Société Anatomique de Paris, tome xv., p. 176, 1840.

[21] Maunoury: Infiltration purulente puerpérale de l'Estomac. Bulletin de la Societé Anatomique de Paris, tome xvii., p. 175, 1842.

[22] Mayer: Abcès sous-muqueux de l'Estomac. Bulletin de la Société Anatomique de Paris, tome xviii., p. 298, 1843.

[23] Mazet: Phlegmon diffus de l'Estomac. Bulletin de la Société Anatomique de Paris, tome xv., p. 173, 1840.

[24] Moxon: Wilks and Moxon's Pathological Anatomy, p. 331.

[25] Raynaud (Maurice): De l'Infiltration purulente des Parois de l'Estomac. Bulletin de la Société Anatomique de Paris, tome vi., p. 62, 1861; and Gazette Hebdomadaire, 1861, pp. 511 and 525.

[26] Sestier: Abcès metastatique des Parois de l'Estomac. Bulletin de la Société Anatomique de Paris, tome viii., p. 130, 1833.

[27] Strumpell: Text-book of Medicine, second American edition, 1893, p. 383.

[28] Tüngel: Virchow's Archiv, 1865, Band xxxiii., p. 306.

[29] Whipham: Remarks on a Case of Phlegmonous Gastritis. Brit. Med. Jour., 1884, vol. ii., p. 896.

[30] Ziegler: Pathologische Anatomie.

[31] Ackermann: Ein Fall von Phlegmonöser Gastritis mit Thrombose zahlreicher Magenvenen und embolischen Heerden in der Leber und den Lungen. Archiv für Pathologische Anatomie, &c., Berlin, 1889, Band xiv., pp. 39–60.

[32] Asverus: Ein Fall von Gastritis Phlegmonosa Jenaische. Zeitschrift für Medicin und Naturw. Leipzig, 1866, Band ii., pp. 416–482.

[33] Beckler: Ein Fall von Idiopathischer Phlegmonöser Gastritis. Aerztliche Int. Blatt, München, 1880, Band xxvii., p. 403.

[34] Belfrage: Fall af Gastritis Phlegmonosa. Upsala Läkaref Förh, 1872, vol. vii., p. 292.

[35] Bianchetti: Sopra un Caso di Gastrite Flemmonosa. Gazzetta Medicale Ital. Prov. Venete, Padova, 1875, vol. xviii., p. 217.

[36] Chvostek: Ein Fall von Gastritis Phlegmonosa. Wiener Medicinische Presse, 1877, Band xviii., p. 693. Ein weiterer Beitrag zur Primären diffusen Phlegmonösen Gastritis. Wiener Medicinische Blatt, 1881, Band iv., pp. 831, 861, 891, 924, and 992.

[37] Deininger: Zwei Fälle von Idiopathischer Gastritis Phlegmonosa. Deutsche Archiv für Klinische Medicin, Leipzig, 1878–9, Band xxiii., p. 624.

[38] Dirner: Gastritis Phlegmonosa. Orvosi H.etil, Budapest, 1881, vol. xxv., p. 793.

[39] Ferraresi: Sulla Gastrite Flemmonoso. Atti della Accademia Medicale di Roma, 1887, 2 S., vol. iii., p. 267.

[40] Fontain: Gastrite Phlegmoneuse. Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris, 1866, tome ii., p. 131.

[41] Fraenkel (E.): Ueber einen Fall von Gastritis Acuta Emphysematosa wahrscheinlich Mykotischen Ursprungs. Virchow's Archiv, 1889, Band cxviii., p. 526.

[42] Gaudy: Observation de Gastrite Phlegmoneuse. Archives Médicales Belges, Bruxelles, 1863, tome xxxi., p. 459.

[43] Gläser: Zwei Fälle von Gastritis Phlegmonosa Idiopathica. Berliner Klinische Wochenschrift, 1883, Band xx., p. 790.

[44] Glax: Ueber Gastritis Phlegmonosa. Berliner Klinische Wochenschrift, 1879, Band xvi., p. 565.

[45] Guyot: Gastrite Phlegmoneuse. Union Médicale de Paris, 1865, 2 S., tome xxvii., p. 184.

[46] Hun: Idiopathic Phlegmonous Inflammation of the Submucous Cellular Tissue of the Stomach. New York Medical Journal, 1868, vol. vii., p. 18.

[47] Key and Malmsten: Fall af Phlegmonos Gastritis. Förh v. Svens. Läk-Sällsk Sammank, Stockholm, 1871, p. 69.

[48] Lewandowsky: Zur Casuistik der Idiopathischen Gastritis Phlegmonosa. Berliner Klinische Wochenschrift, 1879, Band xvi., p. 568.

[49] Lewin: Zur Casuistik der Gastritis Phlegmonosa Idiopathica. Berliner Klinische Wochenschrift, 1884, Band xxi., p. 73.

[50] Ödmansson: Gastritis Phlegmonosa Diffusa. Förh v. Svens. Läk-Sällsk Sammank, Stockholm, 1865, p. 265.

[51] Petersen: Ein Fall von Gastritis Phlegmonosa. St. Petersburger Medicinische Wochenschrift, 1879, Band iv., p. 288.

[52] Treuberg: [Primary Phlegmonous Inflammation of the Stomach] Vrach, St. Petersburg, 1883. vol. iv., p. 355.

[53] Fagge: A Case of Diffused Suppurative Inflammation of the Stomach. Transactions of the Pathological Society of London, 1874–75, vol. xxvi., p. 81.

[54] Habershon: Case of Suppuration in the Coats of the Stomach. Guy's Hospital Reports, 1856, 3 S., vol. i., p. 115.

[55] Macleod: Suppurative Gastritis. THE LANCET, Dec. 10th, 1887.

[56] Page: A Case of Gastrostomy Fatal on the Twenty-third Day from

Stewart,[57] and Whipham.[58] Phlegmonous gastritis occurs either as a circumscribed suppuration or abscess or as a diffuse purulent infiltration of the walls of the stomach. Many of the recorded cases seem to have been instances of local pus formation or abscess of the stomach. The form to which I desire especially to draw attention is the diffuse or general phlegmonous variety of gastritis. Andral and Cruveilhier were perhaps the first to clearly recognise this form. It is undoubtedly but seldom met with. Auvray in 1866 was only able to collect 22 cases, and Leube in 1877 refers to no more than 31. Glax[59] in 1884 was able to bring the number up to 51. Ewald[60] in his classical work states that he had only seen one case and that was at Berlin in Frerichs' ward. The number of recorded cases since this date has been exceedingly small. The rarity of the condition appears to make it desirable that the following case which has recently come under my observation should be placed on record.

The patient, a man aged forty-six years, was admitted, on Sept. 28th, 1895, to the Manchester Royal Infirmary, under the care of Mr. Walter Whitehead, through whose kindness I am enabled to record the case. With regard to the clinical history,[61] the patient had always enjoyed good health. Seven years ago he swallowed a small quantity of turpentine, but suffered from its effects only for a day or two. Five years since he commenced to be troubled with irregular attacks of dysphagia associated with vomiting. Sometimes he could take nearly any kind of food, but at other times had to confine himself to "slop diet." He gradually got worse and for the last three months had only been able to take small quantities of liquid food, most of which seemed to him to stop at about the level of the upper part of the sternum and then in a very short time was vomited unaltered. He had never suffered any very distinct pain, but had lost weight during the past few months. On admission the patient, who was an under-sized and somewhat emaciated middle-aged man, could only swallow a very small quantity of milk at a time and most of this was generally quickly returned mixed with much mucus but presenting no evidence of any gastric elements. He appeared to experience no pain. There was no evidence of any glandular enlargement and no indication of any intra-thoracic growth or aneurysm could be detected. On passing a bougie with great care, the patient being allowed to swallow it himself, and no other force being used, it was found to be arrested at a point fourteen inches and a half from the teeth. On withdrawing it there was no blood or particles of growth adherent to it. The stricture appeared to be of a fibrous character. After the first week of observation in hospital careful dilatation was attempted by the passages of bougies on every other day. On several occasions a small-sized instrument was apparently passed into the stomach. After these attempts at dilatation the patient said he could swallow much better and used to beg to have the bougie passed. The general condition of the patient seemed to be improving. On Nov. 8th his temperature, which had hitherto been subnormal, gradually rose, and in the evening stood at 100·4° F. There was no evident cause for this rise except constipation. The rectum was found to contain hard fæcal masses. On this condition being relieved the temperature fell and remained subnormal for several days. Two days previous to his death the patient complained of some little pain in the abdominal region, but it was by no means severe. On the 17th the temperature rose to 100·4°, but there were no indications of any serious condition. At six o'clock on the morning of the 18th he was much worse, and at about eight o'clock was greatly collapsed and only just conscious. He complained of pain in the abdomen and there was a marked sense of impending death. The pulse could hardly be detected and there was some difficulty in breathing. He quickly became unconscious and rapidly sank, dying at 9.30 A.M.

Necropsy.—A post-mortem examination was made the following morning. The following is a summary of the report[62]:—The man was middle-aged, well-formed, but extremely emaciated. There was no undue abdominal distension and no sign of external injury. Rigor mortis was well-marked. With regard to the œsophagus,[63] half an inch above the termination of the gullet there was considerable stenosis for about an inch and a half. The contracted portion was firm and indurated, the thickened walls consisting of fibrous and apparently cicatricial tissue. The mucous membrane was, of course, absent. In the fibrous tissue were several small longitudinal slits or sinuses, passing principally in an upward direction in the submucous tissue. One of these sinuses could be traced upwards for a distance of two inches. Three inches above the stenosed portion the mucous membrane of the œsophagus was found to be bulging inwards over an area one inch and a half in length, and thus considerably obstructing the lumen at this part. On being opened a quantity of thick, curdy, and somewhat fetid pus escaped. The abscess was situated in the submucous tissue between the œsophagus and the posterior wall of the trachea. There was no evidence of any growth. The walls of the œsophagus above the abscess seemed fairly normal, but immediately in its neighbourhood and below it the submucous tissue was infiltrated with pus. The lower part of the œsophagus was, in fact, the seat of an acute septic œsophagitis, infection having apparently occurred from the sinuses present in the fibrous stricture. On tracing the œsophagus down into the stomach the latter was found to be the seat of a diffuse sero-purulent inflammatory exudation. The stomach was normal in size, or, if anything, a little smaller than normal. Externally there were no adhesions. Its serous coat, however, had a peculiar mottled appearance and was of a yellowish-white colour. The whole organ felt very much thickened, but uniformly so, and on raising it seemed very heavy. Its weight, after removal from the body, was twelve ounces. On opening the stomach its walls were found to be much increased in extent, but the increase was general, and from the cut surfaces an abundant sero-purulent exudation oozed out on gentle pressure. The mucous membrane was very congested, swollen, and corrugated, but presented no evidence of any ulceration or growth. There was no sign of any localised bulging into the stomach or perforation of the mucous membrane. The structures between the mucous and serous coats were very markedly increased in extent, forming, indeed, more than half the thickness of the whole wall. It had a yellowish-white glistening appearance, and, as above indicated, consisted principally of pus.[64] The remaining organs presented but little of importance. The peritoneum was congested, but there was no general peritonitis. The duodenum was normal; the purulent infiltration into the walls of the stomach seemed limited by the pylorus. The intestines were congested, small, empty, with a few fæcal masses in the large gut. The omentum was congested. The mesentery still contained a little fat. The liver was small, weighed 35 oz., and was congested. The gall-bladder was distended with bile. The spleen was small and weighed 3 oz. The kidneys were small and congested; their united weight was 7 oz. The bladder was contracted. The heart was small and wasted; the valves were slightly thickened; a few patches of calcareous deposit were found in the aorta; there were slight adhesions in the pleuræ. The lungs were pigmented and congested, but crepitant throughout.

Microscopic examination.—The stomach was hardened in Müller's fluid. Portions after embedding in celloidin were cut and stained by various methods. The following appearances were noted. The mucosa was intensely congested. Between the gland tubules there was considerable cellular infiltration. Towards the deeper part of the mucosa the purulent infiltration was much more marked. The cells were swollen and showed much parenchymatous degenerative change. The muscularis mucosæ was closely surrounded by abundant aggregations of leucocytes. The submucosa was enormously increased in extent and the seat of large collections of pus cells. In many parts the accumulation of leucocytes formed extensive cellular masses, staining deeply with nuclear stains. In some parts of the submucosa granular material and

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Acute Parenchymatous Gastritis. THE LANCET, July 14th, 1883. The same case is recorded by Silcock: Stomach exhibiting the Condition known as Phlegmonous Gastritis. Transactions of the Pathological Society of London, 1882–83, vol. xxxiv., p. 90.

[57] Stewart (Grainger): Case of Gastritis Phlegmonosa, with inflammation and Gangrene of the Gall-bladder. Edinburgh Medical Journal, 1867–68, vol. xiii., p. 732.

[58] Whipham: Remarks on a Case of Phlegmonous Gastritis. Brit. Med. Jour., 1884, vol. i., p. 896.

[59] Glax (J.): Die Magenentzündung. Deutsche Medicinische Zeitung, 1884, No. 3.

[60] Ewald: Lectures on Diseases of the Digestive Organs. New Sydenham Society's Translations, vol. ii., p. 504.

[61] For details of many points in the clinical history I am indebted to Mr. Cran, house surgeon to the Royal Infirmary.

[62] Manchester Royal Infirmary Post-mortem Reports: Surgical 1892, No. 225, p. 686.

[63] The preparations of the œsophagus and stomach were shown at the Manchester Pathological Society, Jan. 16th, 1895.

[64] The specimen has been added to the Pathological Collection of the Owens College, No. 3240.

breaking down pus cells formed well-marked areas, which stained but little with the ordinary dyes. The muscular bundles showed considerable infiltration with pus cells and evidence of degenerative changes. The serous coat was also congested, and beneath it were accumulations of leucocytes. The vessels in all parts of the wall were intensely engorged. Examination of the œsophagus at the seat of stricture showed no evidence of growth, but abundant formation of fibrous tissue. The walls of the œsophagus, and especially the submucous tissue, showed extensive infiltration with leucocytes. Sections stained according to Gram's method showed considerable numbers of short rod-like organisms closely resembling the bacillus coli communis in general appearance.

Manchester.

INCONTINENCE OF URINE INHERITED BY AN ENTIRE FAMILY FROM THEIR FATHER.

By T. K. MONRO, M.A., M.D. GLASG.,
ASSISTANT PHYSICIAN TO THE GLASGOW ROYAL INFIRMARY.

THE following record is of interest on account of the extent to which a single family suffers from this distressing neurosis. My notes were taken some time ago at the dispensary of the Royal Infirmary. The family consists at present of five girls and one boy. Another girl is dead. The first, a girl eighteen years of age, has been very nervous of late and sometimes has epistaxis. In her early days she wetted the bed every night like the other children. She began to suffer from rheumatic fever when aged ten and a half years and was confined to bed for a year. The mother attributed this illness to the patient lying on a mackintosh in a bed wet with urine. Different medical men said she had heart disease and one called it "valvular" disease, but at present no distinct murmur can be made out. This girl first menstruated at fourteen and was thereafter free from incontinence for almost a year, but she began to suffer again when she took to heavy work. She is still troubled occasionally at night and rarely by day. She is worse in this respect before each menstrual period, being better for two or three weeks in each interval. She never had fits. The second, a girl aged sixteen years, has to wear glasses constantly. During the day she has to leave her work so often to micturate that she "thinks shame" and even thus she wets herself occasionally. Like her elder sister, she first menstruated at fourteen, and, like her, she is worse with regard to incontinence for a few days before each menstrual period. When aged two years she had fifteen fits in one night and then slept for two weeks; she has never had fits since then. She had "decline in the bowels" before the fits began. She did not walk till she was about two and a half years old. In her schooldays she was very apt to wet her clothes. The third, a schoolgirl aged twelve years, has not yet menstruated. She suffers much from nocturnal incontinence. She has sometimes to ask to go out of school, but not often. Apart from incontinence she enjoyed good health till two years ago, but she has suffered of late from symptoms suggestive of gastric disorder. She always wets her bed. The fourth child died from whooping-cough, aged six weeks. The fifth, a schoolboy aged eight years, has given trouble almost since he was a baby by wetting the bed. His mother has found that he has wetted it as often as six times in one night. He has a high palate, and until three years ago was subject to fits, in which he would get stiff, froth at the mouth, and lose his senses. The fits began at the age of two years; he would have one severe fit at a time and then remain free for about six months. In the first one he was stiff and white; in the last his hands and feet turned inwards. The sixth, a schoolgirl aged six years, enjoys good general health, but wets her clothes by day and her bed by night. The seventh, a girl aged five years, not yet at school, does not go out much, even to play, and so does not wet her clothes by day. She wets the bed, however, perhaps once in each night. The father suffered from nocturnal incontinence till he was a big lad, but not since his wife has been acquainted with him. He is said to be nervous, but his wife is not aware that he ever had fits. He has a brother who is free from nycturia. This brother has six boys and a girl, and all of these are free from incontinence. No other relatives are known to suffer from incontinence or from fits.

There is but little to add on the subject of treatment. The mother used to put mackintosh sheeting on the beds, but since one of her daughters suffered severely from rheumatism, apparently in consequence of lying on a wet bed, she has made the children lie on straw mattresses, which absorb the urine and are dried every morning on which they are found wet. As this drying is done in the yard of a tenement in this populous city the curiosity of neighbours is naturally aroused, and this constitutes one element in the distress entailed upon this unfortunate family by their unwelcome inheritance. One of the girls visited the dispensary, but, as the mother afterwards explained, she did not like to be questioned about her infirmity and so would not continue to attend; the boy came several times. Belladonna in increasing doses did him no appreciable good, and instructions were then given to apply a blister to the back of the neck. None of the family has returned to tell the result. If the mother and the patients were disposed to persevere in their efforts to obtain a cure, I should be inclined to ask a surgeon to apply a mild caustic to the neck of the bladder, waiting to observe the result in one of the children before operating on the others. The mother, however, gives one the impression that she is resigned to her lot, and not likely to persevere long with any treatment which does not at once yield decided results.

Glasgow.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

AN UNUSUAL CASE OF EMPHYSEMA OF THE ORBIT.

By CHARLES RAMAGE, M.D. EDIN.,
LATE HOUSE SURGEON, MANCHESTER ROYAL EYE HOSPITAL.

A MAN aged twenty-seven years received a very severe blow over the left eye at 9.30 P.M. on Jan. 12th, 1896. At the time of the injury the back of his head was against a wall, and the force employed was great enough to render him unconscious for over twenty minutes and to cause very profuse epistaxis. When I saw the patient on the day following the injury the eyelids were greatly swollen and a slight cut existed about the middle of the upper one, while the lower was of a reddish purple colour. Palpation revealed a peculiar crepitating feeling due to effusion of air into the cellular tissue, which extended upwards over the eyebrows slightly on to the forehead and downwards over the malar. There were great proptosis and subconjunctival ecchymosis, though the eyeball was freely movable, was of normal tension, with an active pupil and vision = $\frac{6}{9}$. The remarkable fact was the marked paresis of sensation on the left side of the nose, accompanied by loss of smell on the same side. The nasal bones were perfect and the supra- and infra-orbital nerves were unaffected. These facts would seem to indicate that there had been a fracture of the anterior fossa of the base of the skull dividing the nasal nerve and branches of the olfactory nerves. Treatment consisted in insufflation of iodoform into the left nostril, with the use of purgatives and a firm compress over the orbit. The eye symptoms disappeared in a fortnight, though sensation on the left side of the nose and the sense of smell are still defective.

Leicester.

TWO CASES OF GANGRENOUS STOMATITIS, ONE ENDING FATALLY.

By R. MILBOURNE WEST, M.R.C.S. ENG., L.R.C.P. LOND.

CASE 1.—A healthy-looking woman aged twenty-eight years sent for me on Nov. 24th, 1895, suffering from what appeared to be ordinary tonsillitis threatening quinsy. Both tonsils

were red and swollen, the left particularly so; the cervical glands were enlarged; she had considerable pain and difficulty in opening the mouth, with dysphagia. Her temperature was 102° F. There was no membrane and no albuminuria. She was ordered gargarisma Condii and glycerinum acidi tannici. On the following day she appeared to be worse, there being complete dysphagia, fluids running out of the corners of her mouth, together with insomnia. The left tonsil was covered with a grey slough the size of a threepenny-piece, which was easily detached, leaving a fairly deeply excavated ulcer, which was swabbed with glycerinum acidi carbolici. On the 26th the right tonsil and most of the soft palate were involved in the sloughing. Her general condition was weaker, she having taken very little nourishment. Local treatment could only be applied with difficulty, owing to the patient's objections. On the 27th the uvula sloughed off. The soft tissues covering the hard palate had become involved. She had an attack of dyspnœa, which, however, passed off. On the 28th she died suddenly, apparently from heart failure. The whole of the uvula, soft palate, and left tonsil, part of the right tonsil, and the soft tissues covering the bony palate were destroyed.

CASE 2.—A son of the above patient, aged eight years, and living with her, was taken ill on the same day as his mother with similar symptoms, though in a milder degree. His temperature was 103° F. Both tonsils were involved, the sloughs on separating leaving deep ulcers and in some parts completely destroying the soft palate and tonsils. He was treated throughout with glycerinum acidi carbolici and occasional washing out with antiseptic solutions. He did well and was convalescent by Dec. 3rd, having lost both tonsils and part of his soft palate.

The above cases are of interest as showing the extreme rapidity of the disease, thus resembling cancrum oris in infants. Two patients in one household having been attacked points to the malady being infectious—indeed, the elder patient died apparently from acute septicæmia. The disease differed materially from diphtheria in the deep and extensive sloughing, being not merely an exudation on to the surface and into the more superficial parts; also in the entire absence of albuminuria, and, in the younger patient, in the absence of paralytic sequelæ.

Leicester.

SUBCUTANEOUS EMPHYSEMA OCCURRING DURING LABOUR.

BY G. L. FREEMAN, L.R.C.S. & P. IREL.

HAVING recently met with the following case I shall be glad to have from any of the readers of THE LANCET an opinion as to the site and the predisposing cause of the rupture in the respiratory passage. I have consulted several text-books on the subject, but can get no information. About 6 A.M. on Dec. 1st, 1895, I was called to a primipara in the first stage of labour. She had been ill since 11 P.M. the previous night, and was nervous and excitable till the second stage began at 8 A.M. Labour terminated naturally about 11 A.M. During the second stage the pains were very severe and she became much quieter, holding in her breath and bearing down. About an hour before delivery she said her face felt tight and was swollen; on inspection it was seen to be full, but no further notice was taken, and she turned away her head, covered it with a pillow, and remained so till the child was born. Then, when she turned round, her face was seen to be enormously distended as well as her throat, shoulders, and chest down to about the third ribs, and the swelling had the typical crackling feeling of subcutaneous emphysema. She complained of breathlessness and a feeling of constriction about her throat. In her efforts to expel the placenta the swelling obviously increased and the breathlessness became aggravated. Firm downward pressure on the neck relieved her temporarily, and after the removal of the placenta the difficulty gradually subsided. Towards night the swelling was considerably diminished, and on the morning of the 4th there was no trace of the condition. She was a slight, spare, healthy woman twenty years of age with a good previous history.

Wishaw, N.B.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum propriis collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. GEORGE'S HOSPITAL.

A FATAL CASE OF PANCREATITIS WITH HÆMORRHAGE.

(Under the care of Dr. ROLLESTON.)

FROM time to time, at considerable intervals, cases of acute pancreatic inflammation are published in our columns and in those of our contemporaries. The disease is one which, although rare, presents peculiar symptoms, resembling sometimes those presented in cases of intestinal obstruction, and at others causing a strong suspicion that the patient has been poisoned. It is, therefore, most important that all cases should be published when they have been carefully observed and are real contributions to our scanty literature on the subject. Fitz[1] made a careful summary of the cases previously reported of acute pancreatic disease, collecting altogether 17 instances of hæmorrhagic, 22 of suppurative, and 15 of gangrenous pancreatitis, besides 16 cases of hæmorrhage into the pancreas. He came to the following conclusions. The disease represents a serious complication of what, by itself, is a relatively simple affection—viz., gastroduodenitis; it is an important cause of peritonitis, and one readily overlooked; it has been repeatedly confounded with acute intestinal obstruction and has thus led, in several instances, to an ineffective laparotomy, an operation which, in the early stages of this disease is extremely hazardous." Dr. Day[2] has recorded a case in which transient jaundice was noticed. His patient died suddenly in collapse. For the notes of the case we are indebted to Dr. J. Blumfeld, house physician.

A man aged thirty-one years was admitted to hospital at 12.30 P.M. on Feb. 24th, under the care of Dr. Rolleston, complaining of pain in the abdomen. Four years previously he had a severe attack of epistaxis which caused him to lie up for a week. Three years before he had a similar but less severe attack. With these exceptions he had always been a healthy man. He was a drinker of beer, but never the worse for drink. There was no history of injury to the abdomen. As regarded his present illness he was in his usual good health till about 11.30 on the morning of Feb. 23rd. At that time, while doing light work in his back yard, he was seized with great pain "about the middle of the stomach," which caused him to lie down on a sofa. He was bent with the pain, but it did not make him faint. By 1 P.M. it had passed off sufficiently for him to enjoy a dinner which included roast mutton. Soon after the meal the pain recurred as intensely as at first. He took some castor oil to remove it, and this failing repeated the dose later in the day. He could take no food now except a little milk. The pain persisted till he went to bed and kept him awake at night. About three o'clock on the Monday morning he retched several times and vomited a very small quantity of fluid with a teaspoonful of blood. Being no better by midday he was driven up to St. George's Hospital. The bowels had not acted since the beginning of the attack. They last acted on the Sunday an hour or two before the pain came on. On admission the patient was found to be a healthy-looking, stoutish man. The face had a good colour and did not show pain or anxiety; the voice was weak. He was quietly restless and had a peculiar alertness of manner. He lay on his back in bed, the legs not drawn up. The tongue was moist and pale. The abdomen showed some general distension, particularly in the epigastric region. It moved well, but not perfectly, with respiration. Liver dulness was present to the normal extent, and there was a tympanitic note over the normal stomach area. Elsewhere in the abdomen the percussion note was resonant. There was tenderness on pressure about half way between the ensiform cartilage and the umbilicus, but anywhere else even firm pressure did not

[1] Medical News, Feb. 23rd, 1889. Sajous, 1890, vol. i., C24.
[2] Boston Medical and Surgical Journal, Dec. 15th, 1892.

cause pain. He complained of pain "round the bottom of the ribs," in the umbilical region, and particularly "in the small of the back." The heart and lungs were normal. The temperature was normal and the pulse 90. He was ordered hot fomentations to the abdomen and a common enema, to be followed by nutrient enemata every four hours. At 6 P.M. the temperature was 103° F. The condition seemed to be otherwise unchanged. He had passed only about an ounce of urine of normal character. The enema brought away a few scybala. Four hours later the pulse was 132, the hands very cold, and the temperature 95°. He complained of thirst, but the tongue was still quite moist. The face showed no particular distress, but restlessness was continuous, the patient never lying quite still, yet never making any great movement. The rectum was examined and found to be very widely dilated and empty. The bowels had not acted spontaneously and no more urine had been passed. Mr. Warrington Haward saw the patient in consultation with Dr. Rolleston, and it was decided that although there was obviously some very grave mischief within the abdomen the condition of collapse prohibited laparotomy. He was kept wrapped in blankets, surrounded by hot bottles, and treated by nutrient enemata and hypodermic injections of morphia. The collapse lasted through the daytime of Feb. 25th. The pulse, 140 counted at the heart, became imperceptible at the wrist. The abdomen was considerably distended, but still moved fairly well with respiration. The tongue remained moist. A few râles were heard at the right base. Nutrient enemata were now no longer retained, one being returned with a considerable amount of fluid fæces. The man became delirious and made one attempt to get out of bed. At 9 P.M. the temperature rose to 103°, the face became drawn and pale, with livid lips and nose, and the patient lay curled on his side gasping till death, which occurred forty minutes later.

Post-mortem Examination.—This was made sixteen hours after death by Dr. Cyril Ogle, from whose notes the following account is, by his kind permission, abstracted. There was fibrous puckering at both apices of the lungs; the right lower lobe was deficient in air. A few small hæmorrhages were found beneath the visceral pericardium on the posterior surface. The liver was large, soft, and fatty. The kidneys were normal. The adrenals were also normal, but embedded in blood-clot. There was no general peritonitis, red lines, or lymph. A few ounces of turbid serum were present in the pelvis. The mesentery, especially on its left aspect, showed blotches and streaks of white opacity, having the appearance of "fat necrosis." This condition was well seen on the peritoneum in front of the left adrenal. It was not seen in the fat of the abdominal wall, the great omentum, on the appendices epiploicæ, or in the fat round the kidneys. Behind the peritoneum, infiltrating the tissues in front of the pancreas and also particularly below it, there was blood-clot of a chocolate colour. This layer of blood was about three-eighths of an inch thick and had spread to the sides covering the front of each kidney and suprarenal. The semilunar ganglia and their branches were enveloped by it and the root of the whole mesentery infiltrated with it. Lying behind the stomach enclosed in the sac of the omentum were several ounces of fluid like milk. The surface of the stomach had recent soft lymph on its posterior aspect. The pancreas, on section, presented a remarkable appearance. The lobules were distinct, but between them there was opaque white material like putty; a layer of this also lay on the surface of the pancreas. This change of tissue was much more marked as regards the head of the organ. The creamy fluid above mentioned lay between the stomach and the pancreas. Sections of the pancreas, hardened and stained with picrocarmine, as well as those made and examined when fresh, showed that there was abnormal material between the lobules of the organ. This had nowhere the appearance of blood, and the sections altogether gave no evidence of hæmorrhage into the pancreas itself. The interlobular material referred to appeared to be mainly of a necrotic nature. It contained in some places large numbers of small fat crystals and showed other evidences of being necrosed fat; elsewhere it contained cells that under a high power greatly resembled pus cells. These appearances suggested interstitial inflammation and fat necrosis.

Remarks by Dr. BLUMFELD.—The case has interest and importance in two ways—from the clinical point of view and from the pathological. Clinically, a correct diagnosis in such a case would save the patient from a needless operation that could not possibly increase his chance of recovery and would presumably hasten his death. For, judging from the post-mortem appearances, it would have been extremely difficult to have got at the chief collection of blood and quite impossible to remove it, infiltrated and clotted as it was into the tissues. Moreover, even if the blood were removed there remained the diseased pancreas, which presumably caused the hæmorrhage and might well have led to further extravasation. The history gave no help to diagnosis: there had been no injury or blow such as might have caused hæmorrhage. Could the condition have been diagnosed from the course of the symptoms? There are points in which the case differed, perhaps, from what is seen in the presence of either of the two most probable alternatives—viz., perforation of the stomach or appendix or acute obstruction. The sudden onset of pain and collapse—followed by relief and then by recurrence—are not unusual with perforation, and the great pain in the back, which pointed to the deep seat of the lesion, might have been accounted on the supposition of a duodenal ulcer. But had the persistent pain and the gradually increasing seriousness of the man's condition till it reached one of extreme collapse been due to perforation they would have pointed to the presence of general peritonitis. And in that case would they not almost certainly have been accompanied, at a period as late as two days after the first onset, by absence of abdominal movement with respiration and by the presence of great distension? Neither of these signs showed themselves in this case; but it must be admitted that peritonitis, even when general and severe, is sometimes latent. Again, had the case been one of obstruction the almost entire absence of vomiting and the perfectly moist tongue would have been very exceptional when the extreme collapse and the situation of pain would have pointed to a tight constriction high up in the intestine. It seems possible that continued restlessness, with gradually increasing collapse, with absence of extreme distension and the presence of good respiratory movement of the abdomen, might possibly in another case suggest inflammation or hæmorrhage in the neighbourhood of the pancreas and the solar plexus. Such a consideration might in an obscure abdominal case with much collapse make one hesitate before having resort to laparotomy as a forlorn hope, since, in addition to the danger that the patient may die on the table, there is the possibility that the condition is one of shock due to a lesion beyond relief from surgery. Though laparotomy is not a harmless procedure, it often requires in these days more courage to abstain from than to recommend operative interference in abdominal cases. Early operation in obstruction is invaluable and any postponement after the initial collapse has passed off deplorable, but if the collapse be permanent and progressive the surgeon would be wise, as in this case, to discountenance operative measures. As regards the pathology of the case the post-mortem appearances, both macroscopic and microscopic, prove it not to have been a case of hæmorrhagic pancreatitis.[3] There was extensive hæmorrhage and evidence of an interstitial lesion of the pancreas of an inflammatory nature, but no evidence of hæmorrhage into the pancreas itself, so that it is rather a case of pancreatitis with hæmorrhage than hæmorrhagic pancreatitis. The fat necrosis was limited to the neighbourhood of the pancreas, but was not extensive enough to suggest that the fat necrosis was the primary lesion which by coalescing had led to necrosis of the pancreas. Supposing the pancreatitis to cause the hæmorrhage, as it might do by spreading to and opening a vessel, or secondarily bringing this about through one of the numerous areas of fat necrosis it causes,[4] there is still to be sought the origin of the pancreatic disease. On this point opinion is at present somewhat speculative, but it has been suggested that perhaps the pancreas is liable to an acute infective inflammation such as we are familiar with in the parotid under the name of mumps.[5] A peculiar feature in this case is the association of marked collapse with an irregular temperature reaching on two occasions to 103° and varying somewhat rapidly. Possibly an explanation for this is to be found in the serious damage which the hæmorrhage must have inflicted on the sympathetic plexuses of the abdomen.

[3] Cf. Middleton-Goldsmith Lecture, 1889. By Dr. Fitz, Boston.
[4] Compare case recorded by Dr. A. James, Brit. Med. Jour., 1896, vol. i., p. 533.
[5] Vide Traité de Medecine: Charcot, Bouchard, and Brissaud, vol. iii., p. 407.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Annual General Meeting.—Excision of Portion of Liver for Tumour.—Case of Neoplasm Cyst of the Brain treated by Operation.

THE annual general meeting of the society was held on March 2nd, Mr. HUTCHINSON, the retiring President, being in the chair.

The report of the council was read and disclosed a satisfactory numerical and financial position. The number of Fellows at the present time was 787, and during the year ten Honorary Fellows had been elected. Sixteen Fellows had died, including Mr. Huxley, M. Pasteur, and Baron Larrey. The President's annual address, after referring with satisfaction to the working of the new regulations with reference to the reading and publication of papers, mentioned the three special debates which had been a feature of the society's work during the past year. They had been held upon the Early Syphilitic Affections of the Nervous System, on the Latency of Specific Micro-organisms, and on the Malarial Parasite. The customary obituary notices of deceased Fellows closed the address, and after the usual votes of thanks had been passed, the officers and council were elected to serve during the ensuing year. The following list was chosen:—President: William Howship Dickinson, M.D. Vice-Presidents: John Harley, M.D., James Edward Pollock, M.D., John Langton, and Sir William MacCormac. Honorary Treasurers: William Selby Church, M.D., and J. Warrington Haward. Honorary Secretaries: Norman Moore, M.D., and Robert William Parker. Honorary Librarians: Samuel Jones Gee, M.D., and Rickman J. Godlee, M.S. Members of Council: John Abercrombie, M.D., William Ewart, M.D., David Ferrier, M.D., Felix Semon, M.D., Francis Charlewood Turner, M.D., Arthur Edward J. Barker, Sir William B. Dalby, John Hammond Morgan, Edmund Owen, and Robert Alexander Gibbons, M.D.

Mr. HUTCHINSON then formally installed his successor in the chair of office and Dr. Dickinson was duly invested with the medal of the society and presented with the master key with the usual formalities. The new President having returned thanks the society adjourned.

An ordinary meeting of this society was held on March 10th, Dr. DICKINSON, the newly-elected President, being in the chair.

The PRESIDENT, on taking the chair, said he desired to express a word of sincere thanks to the Fellows for his elevation to the head of the greatest Medical Society in the British Empire. He had thought over what he could do to enhance the importance and dignity and position of the society. He wished to throw out some hints which were for discussion hereafter. He considered it would be a great thing if the society could place itself in the way of being regarded as a kind of court of appeal in scientific and other matters relating to the profession. Years ago Sir Henry Pitman, when secretary, mooted the subject of fusion of the various societies to form an Academy of Medicine, but this did not meet with the approval of the other societies, and it had since been brought up again but had met with a similar fate. He was enough of a conservative in medical matters to wish the society to retain continuity of tradition, and therefore he did not approve of the alteration of name to that of "Royal Academy of Medicine." He thought, however, that something might be done in the way of standing committees. Many good results had followed in the past from committees, and some of them by their reports had brought about a distinct change in the current of medical thought, as, for instance, the Diphtheria Committee. The objection to such committees was that they died a natural death when they reported. It would be highly desirable that some of these committees should be perennial; the same members need not serve continuously, but a proportion of them might be changed each year. This was a fate which might well happen to the Committee on Climatology and Balneology, for such a central committee eliminated local influence, and hence its conclusions were likely to be more impartial than reports from local sources. He thought, also, that the society should advance in a social direction. It would be a gain if on only one evening of the session the elder members met the younger and talked informally concerning matters which were for the good of the profession. To this might be added a dinner, held in the society's house or elsewhere, every year or every second year. These innovations, he said, would tend to weld the society into a united and harmonious body. He concluded by saying that he would not grudge any time or trouble he could devote to promote the further welfare of the society.

Mr. MAYO ROBSON then read a paper on a case of Excision of a Portion of the Liver for Tumour. The notes described the removal of the gall-bladder and a considerable portion of the right lobe of the liver from a woman aged fifty-four, the patient having made an uninterrupted recovery. The operation was performed for a rapidly-growing tumour of the gall-bladder, which on exposure appeared to be malignant, and as there was only one nodule of the disease evident in the liver, and that in close proximity to the distal end of the cystic duct, it was thought desirable to remove at the same time the portion of liver affected. The mass after removal weighed, without any of the gall-bladder, half a pound. Microscopic examination showed the disease to be carcinomatous. After a description of the method of operating Mr. Mayo Robson remarked that the case showed the danger of ignoring the presence of gall-stones, although they might be producing no acute symptoms. He had no doubt that the irritation of such foreign bodies in the gall-bladder and ducts was frequently a direct cause of malignant disease, and in this he was supported not only by his own operative experience, but by the abundant experience of other observers. The after progress of the case was of extreme interest, as not only was recovery uninterrupted, but the patient neither suffered from shock nor had the temperature or pulse above normal. Moreover, she began to improve in her general condition almost immediately, and on her return home, in the sixth week after operation, she had gained strength and weight. The use of the elastic écraseur and other details of the operation had answered so well that Mr. Mayo Robson did not think it necessary to recommend any different procedure from the one he had described in any future removal of a portion of the liver.—The PRESIDENT said that he had always regarded the gall-bladder, like the vermiform appendix, as of very little use, but after what had been discovered with regard to the thyroid gland he hesitated now to express a positive opinion in that direction.—Mr. GODLEE congratulated Mr. Mayo Robson on the success of his case. He inquired how the needles had been placed to retain the elastic ligature and if the method would be applicable in the case of a smaller liver. He was afraid that no surgeon present had any similar experience to bring forward.—Mr. A. E. BARKER said that there was a case on record (although he could not recall the reference) of the removal of a carcinomatous mass from the liver with success so far as the immediate result was concerned. He feared that there was little hope of permanent cure in most of these cases.—Mr. BARWELL inquired how large was the surface of the liver stump, and also what was the covering of the liver afterwards, whether thin stretched cicatrix or skin, and whether there was any discharge or exudation from the scar. The diagnosis of epithelioma, he thought, was not correct; it was more probably encephaloid carcinoma.—Dr. NORMAN MOORE remarked that the new growths in the gall-bladder and common bile duct often had no remote secondary growths, and he recalled two cases in both of which the growth sprang from the common bile duct and remained localised to that structure. The same was true to a rather less degree of the gall-bladder, for there might be a local growth extending from the gall-bladder into the liver in its neighbourhood. He had found that in instances of malignant disease gall-stones were present in association in less than half the cases, and, *per contra*, the great majority of cases of gall-stones were free from cancer. In cases of carcinomatous obstruction of the common bile duct, however, gall-stone was frequently a secondary effect.—Dr. ROLLESTON remarked that he had found that malignant disease of the gall-bladder was commoner than of the bile duct. Most often the gall-bladder cancer was cylindrical-celled carcinoma, and in only one case placed on record by Dr. Hebb, was the carcinoma of the squamous variety. In bile-duct cancer the columnar-celled variety only was found. Of 100 cases of malignant disease of the gall-bladder 68 were found to be associated

with gall-stone, and in these it was remarked that the gall-stone appeared to be antecedent to the cancer. In 28 cases of cancer of the bile duct gall-stone was less proportionately numerous, being present in less than half the cases. In only one case of the whole series did gall-stone appear to be secondary to malignant disease. Keen had operated on an enlarged liver, and removed what appeared to be an adenoma in relation with the bile ducts, a condition probably closely related to carcinoma.—The PRESIDENT said he had long been accustomed to believe that in cases of associated cancer and gall-stone the gall-stone formed first and the carcinoma afterwards. He mentioned the case of an elderly woman in which he had been able to trace this sequence. He had seen her first with gall-stone and obstructive jaundice, and many years afterwards he saw her again with a large localised tumour in the region of the gall-bladder, the malignant nature and origin of which was confirmed at the necropsy.—Mr. MAYO ROBSON, in reply, said that he had often been struck with the way in which gall-stone had caused cancer. In Keen's case he believed that the tumour was a pedunculated one. The scar left after the operation was only of the size of the tip of the finger. He believed that the method he had adopted was only applicable to those cases in which the liver projected beyond the edges of the ribs. The stump after removal was as large as his wrist.

Mr. BALLANCE next read a paper on a case of Neoplasm Cyst of the Brain treated by Operation. The patient was a boy aged eleven, who was admitted to the National Hospital for the Paralysed and Epileptic under Dr. Gowers in October, 1890. Six months before he had had a severe blow on the head. Since the injury he had suffered successively from the following symptoms: irritable temper; fits, commencing with twitching of the right angle of the mouth and followed by paralysis of the lower part of the right side of the face; the gradual extension of the paralysis to the right upper and lower extremities; slow speech; severe frontal headache and purposeless vomiting. After admission to the hospital these symptoms increased in severity and double optic neuritis was observed. In November, 1890, a portion of bone was removed by means of the trephine from over the region of the lower part of the left motor cortex. A sub-cortical cyst was found and evacuated. The symptoms disappeared. In February, 1891, as the symptoms returned, a tube was passed into the "cyst" in order to drain it continuously. The symptoms then in most part disappeared, and the boy remained in fairly good health until January, 1893, when his condition rather suddenly became exceedingly grave. Another operation was performed, and a tumour three ounces in weight was removed from between the dura mater and the left motor cortex. The boy left the hospital quite well, except for very slight hemiplegia, in June, 1893. He was readmitted in September, 1893, in an almost moribund condition, and died a few hours after another attempt was made to relieve the symptoms of pressure by operation. At the necropsy an enormous tumour was found situated in the left cerebral hemisphere. After narrating the case in full Mr. Ballance made some remarks on (1) the diagnosis of the case; (2) the intermission of symptoms in brain tumour; (3) the connexion between trauma and brain tumour; (4) the enormous size of the tumour and the slightness of the symptoms; (5) the twitching of the index finger; (6) the value of cranio-cerebral topography of the scalp; (7) the use of platinised silver tubes for drainage; and (8) the hæmorrhage from the bone in this case. Lastly, the questions were asked: Was the proper surgical treatment adopted? What did this case of tumour of the brain gain by surgical treatment?—Dr. FERRIER and Dr. HALE WHITE took part in a discussion, and Mr. BALLANCE replied.

MEDICAL SOCIETY OF LONDON.

Address on the Physiology and Pathology of the Thyroid Gland.

AN ordinary meeting of this society was held on March 9th, the President, Sir JAMES CRICHTON BROWNE, being in the chair.

Professor VICTOR HORSLEY gave an address on the Physiology and Pathology of the Thyroid Gland, of which the following is a short abstract, illustrating his remarks by a series of limelight projections. He recalled the fact that as far back as 1859 Professor Schiff pointed out that the thyroid gland, previously supposed to possess no particular function, was essential to life. His views, however, were lost sight of, but were reopened in 1884, when that observer definitely proved that the removal of the gland was followed in carnivora by striking symptoms since recognised, thanks to the clinical and pathological observations of Dr. Ord and others, to be those of the disease now known as myxœdema. The lecturer pointed out that as Professor Schiff's experiments had been carried out exclusively on carnivorous animals, to whom the thyroid gland was so necessary to life that they succumbed within a short time of its total removal, no opportunity occurred for him to observe the changes which followed when the fatal result was slower in its advent. He himself had therefore decided to carry out his own investigations on herbivorous animals, taking special care not to injure the nerves which were found in the vicinity of the thyroid gland. He recalled that the results of these experiments, having for result the production of artificial myxœdema in the monkey, had been challenged on the ground that the symptoms, such as they were, were due to injury to the sympathetic nerves. He expressed surprise that the sympathetic theory should ever have found credence—the more so because it was evident that a constitutional disease such as myxœdema implied some profound chemical change in the fluids of the body. The accuracy of the results he had obtained in this direction had ultimately been proved from another point of view by Dr. Murray, who, proceeding on a strictly logical basis of reasoning, had proved that the effects of deprivation of the thyroid function could be overcome by the administration of the juice of the gland. By the aid of photographs projected on to the screen the lecturer proceeded to show the relationship of the para-thyroid bodies, internal and external, to the main body of the gland and by the same means he described the histology of these accessory bodies. He showed that the para-thyroid bodies underwent hypertrophy *pari passu* with the gland itself when this latter enlarged after the removal of one lobe. The structure of these bodies was shown to consist of columns of cells separated by a network of capillaries. After illustrating the histology of compensatory hypertrophy he contrasted this with the changes observed in association with myxœdema. In the former the cubical epithelium lining the acini gradually underwent a change into columnar, while the acini themselves from being spheroidal became branched clefts. Sections of the gland from cases of exophthalmic goitre displayed appearances which greatly resembled those of an acinous gland, the colloid substance being replaced by more or less fluid contents or containing granular particles. He demonstrated the method of secretion of the colloid matter, of which droplets were shown exuding from the cells lining the walls of the acini. He stated that the vacuolation of the nuclei of the fat cells met with in myxœdema was a phenomenon frequently met with in other conditions, as, for instance, in old age, &c. He believed that this vacuolation did not authorise any conclusion as to the nature of the disease.

Sir WILLIAM ROBERTS, in proposing a vote of thanks to Professor Horsley for his address, remarked that as cellular pathology was long since familiar to all of them, so cellular treatment seemed to be coming into vogue. Raw kidney had been administered in cases of renal disease, with what result could only be told later on. Perhaps a similar treatment might be suggested in cases of damaged liver, and it might be remembered in this connexion that the succulent portion of an oyster consisted of its liver. Raw milk and fruit, salads, and underdone meat formed a regular part of the diet of man, and he held that the practice of mankind in all these matters might have a profound and deeper meaning.

Dr. MITCHELL BRUCE, in seconding the vote, said that in the subject under consideration, as well as in antiseptic surgery, pathology and therapeutics had gone hand-in-hand, and he thought that there was hardly a limit to the possible pathological results of researches such as these.

Professor HORSLEY, in reply, said that the scientific basis of the treatment by thyroid extract was on a little different footing from other so-called gland treatment. Dr. Murray had pointed out that if the loss of the gland had produced symptoms of myxœdema it was logical to return the gland to the system. To give kidney substance when the kidneys were destroyed was not the same thing, for the kidney was an excretory organ having a duct. The extravagances of the so-called gland treatment could not be too strongly deprecated. The administration of brain substance at Queen-square had been found to be of no effect.

OBSTETRICAL SOCIETY OF LONDON.

Adjourned Discussion on Abdominal Hysterectomy with Intra-peritoneal Treatment of the Stump.—Exhibition of Specimens.

THE adjourned discussion on Mr. HARRISON CRIPPS' paper, Abdominal Hysterectomy with Intra-peritoneal Treatment of the Stump, was continued at the meeting held on March 4th, Dr. F. H. CHAMPNEYS, the President, being in the chair.

Dr. CULLINGWORTH, in opening the discussion, said he considered that the paper reflected the change which was gradually being effected in the attitude of the profession towards operations for myoma of the uterus. There could be no doubt that these operations were becoming more frequent, this being due to the diminution of mortality consequent upon antiseptic methods and improved technique. There were cases on record in which so far from the tumours ceasing to be a source of trouble and inconvenience at the menopause, as is usually considered to be the case, dangerous complications, such as extensive œdema, malignant change, and even gangrene, have set in some years later, with consequences fatal to the patient. He himself considered surgical interference necessary, first, when it became evident that degenerative, cystic, or other changes were taking place; secondly, when the rate of growth had begun suddenly to increase; and, thirdly, when, after the menopause, the tumours were obviously increasing in size. With regard to the mode in which infection had taken place in the author's fatal case, he thought the author had expressed himself more absolutely than the facts warranted. The statement in the last two lines of the abstract ran thus: "There was one death from sepsis due to infection from the vagina." He thought it would have been well to state this rather as an opinion than a fact. He considered the vagina was blamed somewhat too readily as a channel of infection. Dr. Cullingworth then gave a short extract of all his cases of oöphorectomy for fibroids.

Dr. PETER HORROCKS looked upon abdominal hysterectomy with extra-peritoneal treatment of the stump as a barbarous operation, and he considered that if the intra-peritoneal method could be perfected it was greatly to be preferred. He agreed with nearly all that Dr. Cullingworth had said, but he would like to ask over how many years the thirty or forty operations mentioned by him had been spread. He thought it unfair to compare operations performed during the last year or two with those performed earlier, when asepsis was not so certainly secured. He had performed abdominal hysterectomy for fibroids by Baer's method four times, with one death. The three recoveries were all that could be desired in freedom from pain, absence of pyrexia, and speed of convalescence. The fatal case was in great part, if not entirely, due to the complication of renal disease. He did not think that drainage of the pelvic cavity by means of a tube through the abdominal wound would be satisfactory because the small quantity of serum exuded from the seat of operation could be easily absorbed.

Mr. MEREDITH expressed his dissent from the views of previous speakers as to the grave risks of septic infection entailed by the extra-peritoneal method. His own experience, founded upon nearly a hundred cases, was certainly opposed to their statements. No instance of septic infection from the uterine stump after the removal of the serre-nœud and pin had occurred in his practice. Mr. Cripps, in his abstract, had referred to obstruction of intestine or ureters as dangers entailed by the use of the serre-nœud; but he (the speaker) saw no reason why either of these accidents should result from a skilfully performed operation. Regarding the question of presumed analogy between the state of things left after vaginal hysterectomy and that entailed by the so-called intra-peritoneal treatment, Mr. Meredith considered such analogy faulty, inasmuch as in the former instance the cervix as a possible source of infection is non-existent; the cellular tissue of the broad ligaments is in great measure protected by the ligatures, and there is every facility for free pelvic drainage. In the latter case the cervix remains *in situ* with its stump covered in by flaps of peritoneum enclosing a potential cavity whence there is no means of escape for effused serum or blood excepting through the cervical canal, a state of things most favourable for the development and extension of sepsis, especially if the adjoining broad ligaments have been opened up. While fully prepared to recognise the advantages of a perfect method of intra-peritoneal treatment of the stump he should certainly for the present continue to use the serre-nœud.

The PRESIDENT said that as regards the indications for operations on fibroids it must be remembered that nothing was commoner than the presence of a fibroid growth of great or little size in a woman who was and felt that she was quite well. So that on one side it must be admitted that the majority of cases need no treatment at all, still less a dangerous operation; and we must also remember that we have to face an operation of exceptional danger. The number of cases in which operation is justifiable or desirable must, generally speaking, be regulated by the ascertained risks of the tumour against the ascertained risks of the operation; the former must exceed the latter before operation can be justified. The question of intra-peritoneal or extra-peritoneal treatment must be decided for the present on the grounds of relative mortality. If the clamp still gave the best results it could not be justly described as an obsolete operation. Whenever the two methods showed equally good results the advantages of the intra-peritoneal method were so obvious that it would finally displace the other. For some cases it might already be the preferable operation; but the choice must be made on the grounds of safety, for he thought anyone would prefer having his life saved by a "barbarous proceeding" to being killed by the most advanced "surgical triumph."

Mr. HARRISON CRIPPS briefly replied.

The following specimens were exhibited:—

Dr. AMAND ROUTH: (1) Fibroid Tumour and Cancer of the Uterus; (2) Combined but independent Cancer of the Body and of the Cervix of the Uterus.

Dr. GALABIN: (1) Double Ovarian Tumour (one dermoid) removed during pregnancy; (2) Combined Cancer and Fibromyoma of the Uterus removed by Baer's operation.

Mr. SIDNEY TURNER: Healthy Right Kidney and Remains of Left Kidney (hydro-nephrosis).

Dr. LEWERS: (1) Malformed Fœtus with cystic tumour of neck; (2) a section showing Chorionic Villi from a Tubal Mole.

EPIDEMIOLOGICAL SOCIETY.

Post-scarlatinal Diphtheria.

A MEETING of this society was held on Feb. 21st, Mr. SHIRLEY F. MURPHY, President, being in the chair.

Dr. E. GOODALL in introducing the subject of Post-scarlatinal Diphtheria or diphtheria complicating and following other acute specific diseases, referred to a paper read by Dr. Sweeting in that room three years previously dealing with the age incidence, seasonal prevalence, &c., of the disease. This paper, he said, did not profess to touch on its pathology and etiology, and these were the questions to which he now wished to call attention. The following facts were to be noted in connexion with post-scarlatinal diphtheria: (1) it appeared mostly among patients who had been for some time in hospital, or who were even convalescent; (2) its age incidence was the same as that of primary diphtheria; (3) its fatality, however, was far greater; (4) in its occurrence in different years or months of the same year, and in its ward incidence it was remarkably capricious; and (5) it had occurred in most or all of the Asylums Board's fever hospitals at a time when cases of diphtheria were not received, their admission having been followed by little if any increase in the post-scarlatinal cases. Among the possible causes sanitary defects in the hospitals themselves might be suggested, but neither he nor Dr. Sweeting had been able to substantiate these. As to overcrowding, to which Dr. Caiger ascribed an outbreak in one of his wards in 1892, Dr. Goodall had been unable to trace any such connexion at his hospital (the Eastern), where the crowding was greater. So with regard to the aggregation of severe fever cases consequent on the transfer of convalescents, the incidence of post-scarlatinal diphtheria had been, as a matter of fact, inversely as the percentage of transfers of both diseases, reaching the maximum of 4·4 in 1895, when the proportion of transfers was lowest. Nor did there appear to be any evidence of the communication of diphtheria to scarlet fever patients through the agency of members of the medical and nursing staff, the rules for whose conduct had been very strict since cases of diphtheria had been admitted, and the same might be said of the laundry arrangements. On a few occasions only had he had reason to suspect that the disease had been conveyed by nurses

with mild sore-throats from which the bacilli were cultivated. There was, however, no doubt as to the frequent association or coexistence of scarlet fever and diphtheria. During the past two years typical cases of each disease had been received from time to time from two large workhouse schools, and he had well-marked cases of each from one family within a week or so. Many cases certified as scarlet fever were, in his opinion, really diphtheria from which the exudation was absent or had disappeared, and they might be the means of infecting others. Then the question arose as to the coexistence of the two diseases in the same individual. Since he had employed the bacteriological method in all suspicious cases he had abandoned his former opinion that any large proportion of anginal scarlet fever cases were thus mixed; but there was no doubt that such did occur, though the introduction of diphtheria into the fever wards was generally due, in his opinion, to infection from mild cases of that disease inadvertently admitted as scarlet fever. The susceptibility of scarlet fever patients to the infection of diphtheria had been exaggerated, for the great majority of those exposed to it in the observation ward, when the diagnosis was clinical only, did not contract it. Of 100 consecutive cases sent in as diphtheria 68 were really suffering from scarlet fever, but the long bacillus of diphtheria was found in 6, and the short variety in 13, while two others were clinically recognised as diphtheria, making 21 in all; 5 were rötheln, 3 were measles, 1 was pneumonia with the short bacillus of diphtheria, 1 was diarrhœa only, and 1 was tuberculous meningitis. The scarlet fever cases in which the bacillus was found were mostly very mild, and their mixed character would not have been suspected without a bacteriological examination, the results of which were as a matter of fact often confirmed by the development of paralytic symptoms. These cases had during the last year or two been increasingly prevalent not only in hospitals but also in private practice, as also had those of post-scarlatinal diphtheria. But scarlet fever was not the only disease complicated with diphtheria, the bacilli having been found in measles, whooping-cough, enteric fever, pneumonia, small-pox, and tuberculosis. Of 83 cases of measles sent to the Eastern Hospital in the years 1892, 1893, and 1894 the bacilli were present in 17, or 20·4 per cent., and 9 out of 100 cases of measles arising among the scarlet fever patients showed them. The death-rate of these cases was higher than that of scarlet fever patients, affording a strong argument against the admission of measles into fever hospitals. Dr. Sweeting had proposed as a safeguard the entire separation of the administration of wards for scarlet fever and diphtheria, but it was worthy of note that in the North-Eastern Hospital where primary diphtheritic cases were not received the percentage of post-scarlatinal diphtheria had steadily increased from the year 1892 when the hospital was opened, and last year stood at 1·6, which was about the same in the North-Western Hospital, where a large proportion of the beds were devoted to diphtheria. Diphtheria gradually increased in frequency from 1877 to 1888, the mortality having been 0·09 per 1000 in 1877, 0·23 in 1887, and 0·30 in 1888. The prevalence of post-scarlatinal diphtheria has closely followed that of the primary form, and its incidence had not been materially higher among the scarlet fever patients in the hospitals than among the juvenile population of the metropolis of like ages.

SOCIETY OF ANÆSTHETISTS.

Pental and its Administration.

A MEETING of this society was held on Feb. 20th, Mr. G. HEWLETT BAILEY, President, being in the chair.

Dr. PRINCE STALLARD (Manchester) read a paper entitled Pental, its Administration in 150 Cases, with an Account of One Death whilst under its Influence. Pental is a purified form of amylene which is prepared by C. A. F. Kahlbaum of Berlin at the suggestion of Professor Mering. In many respects, especially in its physiological and clinical action when inhaled by man, pental resembles its predecessor amylene. Dr. John Snow, to whom we are indebted for most of our knowledge of the physiological action of amylene on the human subject, states the quantity of amylene necessary to narcotise the human subject to be from 3 to 4 drachms. Not nearly this quantity of pental is required. The preparation of pental was then explained and its literature narrated. Pental is a clear, mobile, colourless fluid, having no marked taste, but producing a slight burning sensation when placed on the tongue and a slight irritation at the back of the throat which, however, soon disappears. It is exceedingly volatile and highly inflammable; has no escharotic action when dropped on the skin; and its smell is somewhat pungent, but not disagreeable, patients never complaining of its odour. Being at the ordinary temperature of the room so volatile, it is necessary to administer it by the closed method with the admission of as little air as possible. If exhibited on a piece of lint, as is usual with chloroform, a large quantity of the drug is required. Two cases anæsthetised by this method were then narrated. The patients were long in becoming unconscious and both complained of violent headache on recovery. In all the other 148 cases Clover's portable ether inhaler was used. Two drachms of pental are poured into the reservoir, the indicator placed at O, and the patient encouraged to fill the small bag with his expirations; the indicator is then turned rapidly but evenly to 3; rarely is it necessary to turn to F. Pental is thus given more rapidly than is advisable with ether, and attention was directed to the absence of coughing, struggling, and fighting for breath so characteristic of the latter drug when given alone without the previous exhibition of nitrous oxide gas. No restriction was placed on the patients with regard to diet, and in only one case was there after-vomiting. The clothing should be quite loose around the throat and abdomen the thoracic and abdominal movements being quite free. All the administrations took place at about 10 A.M. In all the cases the patients were seated in a dental chair, the head being placed in an easy position midway between flexion and hyper-extension. The horizontal position would be much safer, as signs of cardiac failure not infrequently occurred in the cases quoted, pental in this respect resembling chloroform. When inhaling this drug the pulse is at first quickened and likewise the breathing, and then the pulse becomes fuller and bounding, with dilatation of the capillaries of the face evinced by extreme flushing, similar to that observed when nitrite of amyl is inhaled; swallowing movements are observed, but never any coughing or struggling; screaming may occur and dreams of a pleasant nature are frequently experienced. Spasms, tonic and clonic, are occasionally present in the arms or legs. The lid reflex is usually present unless the anæsthesia be deep; when the patient is deeply "under" the pupils are dilated and the eyeballs turned upwards under the upper lids and in some cases the conjunctival vessels are prominent and congested; the arm when raised drops helplessly to the side. At the height of anæsthesia the pulse becomes small and may be running. There is no cyanosis or duskiness of the features and stertor is very rare. Micturition and defecation have never been observed. Opisthotonos and twitchings of muscles were noted in a few cases, the patients being generally tranquil. The breathing can hardly be heard, and this constitutes one of the dangers, in this respect pental again resembling chloroform. Recovery is extremely rapid, not being followed by any stupor or drowsiness. As a rule there are no after-effects, patients feeling quite well three minutes after removal of the face-piece and being able to walk out of the house. One case only of vomiting occurred and three or four of nausea, slight headache was noted in a few cases, but this rapidly passed off. The average time required to produce anæsthesia was 56 seconds and the average anæsthesia obtained lasted for 76 seconds. The pre-anæsthetic stage varied from 30 to 120 seconds and the anæsthetic period from 25 to 210 seconds. The advantages claimed for pental are: (1) longer anæsthesia than nitrous oxide gas yields; (2) simple apparatus; (3) no struggling, coughing, or dislike to the drug; (4) small amount required, average two drachms; (5) rapid recovery; and (6) the absence of after-effects. The disadvantages are: (1) insidiousness of its action—an overdose can easily be administered; (2) noiseless and shallow breathing; (3) screaming; (4) sudden cessation of respiration; and (5) sudden cardiac failure. Dr. Stallard then related a fatality which had occurred under pental, the case being his 148th administration. The patient, a female aged twenty-three, attended to have several stumps removed. She was well developed and somewhat fat for so young a woman; the heart sounds were quick, but no bruit was present, and there were no adventitious sounds in the chest. She took the anæsthetic well, but being very nervous she commenced to breathe very quickly. Upon being told to breathe more quietly she did so and rapidly became unconscious in 44 seconds. Four stumps were extracted when her

face became pale and respiration ceased, and the pulse, which could be felt, was very feeble. The patient was placed on the floor and Silvester's method of artificial respiration was performed, but there was no attempt at voluntary respiration. The feet and legs were elevated and rubbed by the students present; an enema of brandy was slowly injected, but none of it was retained; warm cloths were applied to the præcordium; traction was rhythmically made on the tongue, and sixty minims of erher was hypodermically injected over the præcordium. The pupils five minutes after removal from the chair were moderately dilated, and the heart could be heard by the stethoscope feebly fluttering. At no time was there any cyanosis or duskiness of the features, but rather paleness of the face. There was no sweating. Upon applying the battery over the phrenic nerve and diaphragm three distinct contractions were noticed and then ceased; the pupils became widely dilated and the tongue cold to the touch. Artificial respiration was continued for one hour, but was of no avail. There was no attempt at voluntary respiration at any time beyond the three contractions of the diaphragm. No post-mortem examination was allowed.

The PRESIDENT said that a full discussion was desirable on these matters. He was delighted to see members of the society pursuing their investigations into various drugs likely to become good anæsthetics.

Dr. DUDLEY BUXTON expressed his keen sense of appreciation of the very lucid way in which Dr. Stallard had brought the matter before the society. Speaking of the mortality of pental Dr. Stallard gave one case out of 149, but whether this was really due to pental was doubtful; Gurlt gave 3 deaths in 600 administrations and Snow 2 in 238 cases. One of the difficulties in working with amylene and pental is the liability of impurities. Before they could accuse pental of causing deaths they must be sure it was pure pental and not some mixture of drugs simulating it. In all probability much of the pental as at present supplied is impure. One German observer has found albuminuria and hæmoglobinuria occurring in many cases within three or four days after the administration. Pental, as far as they knew at present, was a most useful drug, but it possibly and probably possesses grave disadvantages from its liability to affect respiration, perhaps through spasm of the glottis and the diaphragm. In the cases of death it was to be noted that these have arisen from failure of respiration while the heart has continued beating for some minutes afterwards. A marked injustice might easily be done to any new anæsthetic if, because cases of death occurred in the early days of its administration, its use was therefore discarded.

Mr. JOSEPH WHITE said that forty years ago he used amylene extensively, principally for the extraction of teeth, and found it a charming anæsthetic, quick in its action, with no after-effects, and liked by the patients. When used for longer operations he soon found that alarming symptoms were very apt to arise, feeble respiration and circulation occurring very suddenly, so that he discarded the drug, not considering it as safe as chloroform.

Dr. SILK was struck with the similarity of the remarks of Dr. Stallard's cases with those he had himself published as occurring when bromide of ethyl was administered, and given the change of name in the two records of cases observed it would be difficult to distinguish the one from the other. He had noticed that with bromide of ethyl decomposition always occurred sooner or later when the bottle had once been opened, and as the clinical symptoms appear so similar he would ask Dr. Stallard whether he had found any evidence of decomposition occurring with pental. He was of opinion that patients should not be in the dental chair but recumbent during the inhalation of pental, as vascular depression so frequently occurred.

Dr. AUGUSTUS COOK said he had been administering pental during the last four or five years; all his cases had been fairly long ones, some of half-an-hour's extent, but his patients were invariably in the recumbent position. The main advantage of pental was the absence of after-effects; it might even be administered on a full stomach without fear of causing vomiting. The open method was employed in all the cases.

Dr. DUDLEY BUXTON asked if Dr. Stallard could explain why in these recorded cases one would give an anæsthesia of 90 seconds, another of 25 seconds, and another of as much as 210 seconds.

Dr. STALLARD said that he had frequently noticed decomposition of the drug to occur. With regard to albuminuria, he had examined 25 cases after administration and found no albumin, but it must be remembered that all his cases were short ones and its effect would not be long enough to injure the kidney. The fall of blood-pressure was marked. With regard to the length of anæsthesia obtained he was of opinion that there was a marked personal factor in many cases.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

Observations on Mental Fatigue and Recovery.—Pseudo-General Paralysis of the Insane.—Tumour of the Brain.

A GENERAL meeting of this association was held at the Pathological Laboratory, New Museums, Cambridge, on Feb. 20th, under the presidency of Dr. NICOLSON.

Dr. RAYNER moved an expression of congratulation to the President on his promotion to the office of Lord Chancellor's visitor of lunatics, and it was carried by acclamation.—The PRESIDENT replied.—Dr. LOCKHART ROBERTSON was accorded a hearty vote of thanks for his valuable gift of books to the library.

Dr. RIVERS then communicated Observations on Mental Fatigue and Recovery. The investigation was carried out according to a method invented by Professor Kraepelin. The problem was to ascertain the duration of, and period of rest which was necessary for recovery from, the fatigue induced by adding up rows of figures, composed of units, as quickly as possible, one after another. At the end of half-an-hour the number of additions made were marked off. The investigation was divided into two parts; in the first the period of rest was equal to the period of work—viz., half an hour; in the second the period of rest was twice as long as the period of work—viz., an hour. The result was that half an hour's rest was quite insufficient to eliminate the effect of the previous half-hour's fatigue, and even an hour's rest was not altogether sufficient to get rid of the effect of fatigue.—A discussion followed, in which the PRESIDENT and Dr. MERCIER, Dr. MOTT, Dr. WIGLESWORTH, Dr. BOWER, and Dr. RAYNER took part.—Dr. RIVERS replied.

Dr. HYSLOP read a paper on Pseudo-general Paralysis of the Insane. General paralysis, he said, seemed to include every known cerebral degeneration as possible adjuncts of its pathology; many affections, in fact, which are really special paralyses. From the physical side there are two broad types, those which tend to progress and become general and those which tend to progress but remain partial. The result is dementia and paralysis. The epileptic, alcoholic, saturnic, febrile, malarial, syphilitic, apoplectic, and that due to sunstroke are examples of the pseudo form, and remarks were made upon each. Dr. Hyslop thought that general paralysis was not a satisfactory term, but was used because it was convenient. He preferred the term progressive paralytic dementia. No doubt by differentiation and pointing out more clearly the symptoms of the different types they would be better able to give a prognosis.—The PRESIDENT, Dr. SAVAGE, Dr. WIGLESWORTH, and Dr. SHUTTLEWORTH discussed the paper, but, as there was not time for fully discussing it, it was decided to adjourn the discussion until the May meeting and to publish the paper in the April number of the *Journal of Mental Science* so that those members who were not present might be able to read it before the next discussion took place.

Dr. FLETCHER BEACH read notes of a case of Tumour of the Brain.

The meeting terminated with a vote of thanks to the authorities for kindly placing the pathological laboratory at the disposal of the Association.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.—Adjourned Discussion on a Review of 500 Cases of Heart Disease.

A MEETING of this society was held on March 4th, Dr. MUTCH, President, being in the chair.

Mr. ANDERSON showed a man aged sixty-two years on whom he had performed Prostatectomy, removing also some Calculi from the Bladder by the supra-pubic operation. Cystitis existed prior to operation, but the case did well and

the man can now hold his urine for some hours, expels a good stream, and is in good health.

Mr. TRESIDDER showed a man aged thirty-four years from whose Kidney he had removed by the lumbar operation a Mulberry Calculus weighing seventy grains. The patient was first seen on Nov. 5th, 1895, and was complaining of fixed pain in the left side. He had suffered from it altogether for ten or twelve years, feeling it latterly, for, say, two or three years, every day. Lately it came on each day about 11 A.M., reached its acme at 1 P.M., being easier again towards night; it was not influenced by laborious work. The first symptom noticed when an attack was imminent was a sinking feeling in the abdomen, but soon a pain appeared on the left loin, sometimes shooting down the left thigh and sometimes down the left testicle. He had, however, no desire to pass urine frequently when the pain was present and he had never noticed anything wrong with the urine. He had never vomited during an attack, and the pain had only on one or two occasions been severe enough to cause him to cease work for the day. The pain was localised in the left loin, just between the iliac crest posteriorly and the lower edge of the ribs. On palpation here, however, no special tenderness existed and no tumour could be felt. Between the dates of Nov. 5th and Jan. 13th the urine was examined about eight or nine times, and on two occasions only was the merest trace of albumin found, never any visible blood, and the urine was each time faintly acid. A few blood corpuscles and one or two pus cells were seen under the microscope on one of these two occasions. Lumbar operation was performed on Jan. 13th. The kidney was delivered on to the loins, the pelvis incised posteriorly, and the stone removed, the opening in the pelvis being afterwards closed with a few Lembert's sutures. The first treatment adopted was medicinal—bicarbonate of potash and bicarbonate of soda—but was ineffectual. The patient was able to resume work on Feb. 24th, six weeks after the operation. The interest in this case centres in the fact that the man had never had typical renal colic, although the stone weighed seventy grains and was situated in the pelvis of the kidney; and, further, although a rough mulberry calculus, yet there had never been noticeable hæmaturia, and, further, that albumin even was frequently absent from his urine. The main point that decided Mr. Tresidder to adopt operative measures was the character of the fixed pain in the loin and the presence of blood and pus, although only microscopic in quantity, in an acid urine occasionally containing albumin.—Mr. TRESIDDER also showed a woman aged forty-four on whom he had operated twice for the relief of Gall-stones.

Dr. CATTLE described a case of Necrosis of the Nasal Bones and exhibited a number of large fragments which had been expelled through the nares.

Dr. MUTCH showed a Pyo-nephrosis which he had removed containing Calculi, the patient making a good recovery.

The adjourned discussion on Dr. Handford's paper of a Review of 500 cases of Heart Disease was held.—Dr. CATTLE agreed with Dr. Handford that digitalis was frequently given in too small doses. With reference to pseudo-angina he thought that many cases of this were very difficult to diagnose from true angina.—Mr. TRESIDDER raised the question of anæmia as a cause of chronic heart disease and also the significance of the presystolic murmur.—Dr. FFENNELL and Dr. WOOD also spoke.—Dr. WATSON, in making necropsies after death from scarlet fever, had frequently found white patches on the arterial coats as well as on the valves of the heart and thought that scarlet fever was a not unimportant factor in the production of heart disease.—Dr. HANDFORD, in reply, thought that where the pulse tension was low calomel was contra-indicated in heart disease; he thought also that many cases of pseudo-angina were hysterical but that there coexisted increase of arterial tension as evidenced by the large flow of urine so frequently met with after a hysterical attack. He thought that the exhibition of salicylates in rheumatism had lessened the tendency to that disease producing heart disease but that statistics suitable for basing an opinion on the subject were very difficult to obtain.

Mr. ANDERSON showed a specimen of Suppurating Uterine Fibroid removed from a woman aged forty-five. The infection was probably through the uterus; it followed a miscarriage and the uterus was dilated and contained three ounces of pus. The woman was operated upon and the uterine tubes and ovaries removed at the level of the internal os, the patient making a good recovery.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.

A MEETING of this society was held on Feb. 27th, the President, Dr. PORTER, being in the chair.

Dr. ARTHUR HALL showed specimens of Dochmius Duodenalis and Trichocephalus Dispar which had been taken from patients of Dr. Plaxton of Kingston, Jamaica.

Dr. MARTIN showed (1) a large Dermoid Cyst which he had removed from a girl aged seventeen. The abdominal swelling was first noticed about Whitsuntide, 1895, the operation being performed in January, 1896. An interesting peculiarity connected with the operation was the way in which the fundus uteri had been, and the interior margin of the left broad ligament was, dragged, making it difficult to recognise the real nature of the tumour. The patient made a good recovery.—Dr. MORTON also showed a Papillomatous Ovarian Tumour the size of two large oranges, which he had removed from a multipara aged thirty-two. The right was the affected ovary, but the left was also found to be undergoing cystic degeneration and was removed. When the patient recovered from the operation she became demented and had to be placed in a lunatic asylum.

Mr. DALE JAMES showed two cases of Congenital Hyperkeratosis—mother and daughter. The mother was a laundress, and her occupation had reduced the morbid condition to a minimum. The daughter had decided hard thickening of both palms, the creases and folds being deeply fissured. No history of syphilis was obtainable, but the mother had a fissured tongue and the girl showed radiating lines about the mouth and a suspicious facial expression.

Mr. RICHARD FAVELL showed a Small Multilocular Ovarian Cyst which he had removed. The tumour was situated low down in Douglas's pouch behind the uterus. It had given rise to various reflex symptoms.

Mr. SNELL introduced two girls: (*a*) one with a Complete Aniridia in each Eye with Nystagmus and Central Capsular Opacities; (*b*) the other with Glioma.—Mr. SNELL related notes of a case of Vaccine Vesicles on the Eyelid and Conjunctiva. The patient, a woman aged twenty-two, was shown at the last meeting. Her child had been vaccinated on Jan. 20th, and on Feb. 4th she noticed the spots mentioned. She came to the General Infirmary on Feb. 7th, and then on the outer surface of the eyelid was a vesicle greyish-white in appearance and slightly umbilicated and containing a little fluid. Another vesicle was seen on the conjunctiva close to the inner canthus and a third on the conjunctiva near the outer canthus. Three days later they commenced to subside, and throughout there was no invasion of the cornea.—Mr. SNELL also related particulars of a case of Membranous Ophthalmia in an infant aged six months. The membrane covered the inner surface of each eyelid in both eyes. It could be removed, but left the surface slightly bleeding. The cornea was at no time implicated. The disease had lasted three days before her admission to the infirmary on Jan. 24th. The membrane reappeared always after removal. Two days after admission diphtheria antitoxin was injected and repeated the next day, five c.c. on the first and four c.c. on the next occasion. The day after there was no membrane in the left eye and two days later both eyes were normal in every respect. An erythematous rash followed the first administration of the antitoxin. Some improvement had commenced before the antitoxin was used, but it was more rapid immediately after, the membrane, especially in the left eye, becoming loose and very little manipulation allowed of it being washed away by the tears. The child weighed 7½ lb. on admission to the infirmary and a week later had gained ¾ lb., and by Feb. 25th weighed 10½ lb. and had recovered in every way. The bacteriological examination was not complete when the antitoxin was administered. In connexion with this case Mr. Snell referred to that of a woman aged sixty-five, seen two days previously with most definite membrane in one eye affecting the palpebral and ocular conjunctiva, but bacteriological examination did not show any bacillus.

Dr. ADDISON showed cultures from the last two cases.

Mr. CUFF showed—1. A Spindle-celled Sarcoma of the Head of the Tibia. The symptoms which had arisen in four months simulated joint disease very closely. There was fluid in the knee-joint and the heat of the skin was increased, there being an evening rise of temperature ranging from 99° to 100° F. 2. A gastric ulcer situated in the anterior surface near the

pylorus which had perforated and caused the death of the patient.

Mr. MARRIOTT read short notes of an anomalous case of so-called Idiopathic Tetanus and showed numerous Hydatid Cysts which had formed multiple abdominal tumours. The case of tetanus was interesting from the fact that it terminated fatally although the spasms were not severe and the general condition of the patient was good all through till the last day of his illness, when the temperature went up to 105° F.—Mr. RICHARD FAVELL, Dr. SINCLAIR WHITE, Mr. PYE-SMITH, Dr. RHODES, Dr. RUTHERFORD, and Dr. BURGESS made remarks.

LIVERPOOL MEDICAL INSTITUTION.

Changes in the Spinal Cord following Amputations.—Rapid Preparation of Objects for the Microscope.—Exhibition of Specimens.

A MEETING of the Pathological Section of this society was held on March 5th, Mr. FRANK T. PAUL being in the chair.

Dr. ALFRED W. CAMPBELL read a paper on the Changes in the Spinal Cord following Amputations, and detailed the changes found in three cases, one being an amputation below the knee and two being amputations through the upper arm. For purposes of comparison sections of the spinal cord from a case in which the entire brachial plexus had been injured in early life were shown. In all cases marked changes in the spinal cord were found in those segments which receive the sensory nerves from the skin and give off the motor nerves to the muscles removed. These changes were hemiatrophy, with universal reduction in size of grey and white matter, without definite sclerosis of special tracts, and a numerical deficiency of the nerve cells in the cornua, but especially in the postero-lateral group of the anterior cornu, all on that side corresponding to the amputation. In the case where the leg had been amputated there was a reduction in the number of the nerve cells in Clark's column in the lower dorsal and upper lumbar segment. The peripheral nerves above the site of operation revealed marked atrophic alterations and a filling up of the intervening spaces between bundles by large quantities of fat. The ganglia on the posterior roots presented atrophy of some nerve cells. In the brachial plexus case the hemiatrophy was not so marked and the posterior cornua were symmetrical, a condition which Dr. Campbell explained might be due to the skin being left intact. Reference was made to Sherrington, Head, and Thorburn's work on "spinal localisation," and the wonderful accuracy of the results of these observers as confirmed by these cases was commented upon. The paper was illustrated by lantern slides.—Dr. GLYNN, Dr. SHERRINGTON, Dr. BOYCE, and Dr. CHALMERS took part in the discussion.

Mr. THELWALL THOMAS read a note on Rapid Preparation of Specimens for the Microscope by the use of formaldehyde in 4 per cent. solutions, which harden in a few hours any piece of tumour or tissue placed in them. This solution freezes on an ether microtome, and the sections after immersion in methylated spirit can be readily stained with hæmatoxyline. During the past twelve months he had cut sections (over 100) of every tumour or tissue the day after its removal by the surgeon. He also showed sections (1) of Angiomatous (blood and lymph) Growths from the Skin of the Leg and Finger; and (2) of Catarrhal Vermiform Appendix removed for relapsing appendicitis.

Mr. PAUL showed a large Tumour of the Kidney twelve inches in diameter removed post mortem from a man forty-nine years of age. Microscopically it proved to be a primary cystic carcinoma with secondary growths in the lumbar lymphatic glands.

Other specimens shown were as follows:—

Dr. B. MCDONALD: Epithelioma of Ear.

Mr. R. WILLIAMS: Tumour of Lower Eyelid.

Dr. BOYCE: Double Ovarian Tumours with Metastases.

Dr. ABRAM: Brain and other organs from Dr. Davidson's case of Lead Poisoning (recorded in THE LANCET of March 7th, page 627).

Mr. RUSHTON PARKER: Epithelioma of Penis and Lymph Glands in a young patient.

Dr. BARENDT: Malignant Disease of the Œsophagus with Metastases.

Dr. BUCHANAN: Tænia Medio-canellata, Tuberculous Sputum, Retina and Cochlea.

Mr. ALEXANDER: (1) Three Cancerous Uteri; (2) Malignant Tumour of the Ovary with Disseminated Growths; (3) Sarcoma of the Thigh; and (4) Tumour of the Bladder.

KIDDERMINSTER MEDICAL SOCIETY.

Exhibition of Cases and Specimens.

A MEETING of this society was held on Feb. 28th, Mr. W. MOORE, President, being in the chair.

Mr. S. STRETTON showed a youth aged thirteen years with Lateral Sclerosis of ten months' duration; there was no history of injury and no sign of syphilis, the tendon reflex and ankle clonus were very excessive, and his muscles very rigid, but there was no loss of control over the sphincters.

Mr. J. L. STRETTON showed a case of Compound Comminuted Fracture of the left Tibia and Fibula at the Lower Third. The man was brought to the hospital twenty-four hours after the receipt of the injury and with him several pieces of bone about an inch long which had escaped from the wound. After free irrigation with perchloride 1 in 1000 the wound was sutured and dressed with cyanide gauze, and a splint applied. No bad symptom ensued, the temperature never rose above normal, and the first dressing was twelve days after; plaster of Paris was applied on the seventeenth day.—A case of Excision of the Elbow-joint for Ankylosis without Suppuration. The girl was seventeen years of age, and about three years ago had an injury to the elbow joint. She had been in the hospital on two other occasions with the inflamed joint, and on the last occasion some adhesions were broken down under an anæsthetic. As the elbow was fixed at any angle of extreme flexion the joint was excised. The bones removed consisted of the lower end of the humerus and the olecranon process of the ulna, which exhibited patches of caries. The wound was found to be healed at the end of a week when first dressed, and the girl now has a good range of movement, pronation and supination being also perfect.—Two papillomatous Tumours of the Ovary (right and left) removed from a patient aged fifty-three years. The chief interest of the case was the extreme condition of the patient prior to operation and her rapid improvement afterwards. On admission she was much collapsed she suffered from constant vomiting and was unable to retain any form of nourishment, her pulse was small and thready, and she had frequent attacks of fainting. She was too ill to undergo an extended examination, and the idea of an operation would not have been entertained save for the patient's entreaty. Such symptoms were often associated with a twisted pedicle, but this was not apparent in the present instance. As the abdominal walls were thin Mr. Stretton adopted the incision through the right side, with the idea of securing a firmer cicatrix; but he thought that this advantage was more than counterbalanced by the great difficulty experienced in extracting a second tumour from the opposite side should one be found, as it was in this case.—Twenty-five Gall-stones removed from the Gall-bladder of a young woman aged twenty-two, one of which, considerably larger than the others, was fixed in the duct and was with difficulty dislodged.—The Fœtus from a case of Cæsarean Section. The mother was a young Italian girl and had been in labour twelve hours; several attempts had been made to deliver with forceps and craniotomy. She was in a terribly dirty condition and suffering probably from syphilis. The operation was rapidly and easily performed, and during this two pints of saline solution were transfused. She progressed satisfactorily for the first twenty-four hours, then became restless and gradually sank, dying on the fourth day.

Mr. P. E. DAVIES showed a piece of Briarwood, one inch and a quarter long, which he had extracted from the orbit of a man after five days. There was considerable chemosis, but no damage to the eyeball. The piece of wood was lying at the lower and inner side parallel with the nasal duct.

Mr. DAVIDSON exhibited his appliances for Testing Errors of Refraction.

The PRESIDENT read a paper on the Difficulties of Early Diagnosis in Fever Cases.

Dr. EVANS read a paper on Difficulties in Surgical Diagnosis.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases.—Reduction of Dislocation of the Shoulder-joint.—Hip-joint Disease with Unusual Symptoms.

A MEETING of this society was held on March 3rd, Dr. A. BRONNER, President, being in the chair.

Mr. CHAPMAN showed for Dr. CAMPBELL a case of Lupus Erythematosus. The patient was a man aged twenty-two

years, who four years ago had the right thigh amputated for elephantiasis. The area affected by lupus was the lower part of the abdomen and the thigh.—Dr. WOOD, Dr. GOYDER, Dr. LODGE, Dr. CARTER, Mr. HORROCKS, Dr. MITCHELL, and Dr. A. BRONNER, discussed the case, and Mr. CHAPMAN replied.

Dr. HONEYBURNE explained the necessary apparatus and gave a lantern demonstration of Histological, Pathological, Botanical, and Bacteriological specimens.

Dr. MITCHELL showed photographs of a man affected with Eczema Spongosiforme. The skin over the chest, face, shoulder, arm, and forearm was implicated. The skin was thickened and covered with scales which were easily detached and left a moist surface. The condition was one of long standing.

Mr. MIALL read notes on a case of Reduction of Dislocation of the Shoulder-joint and advocated reduction of the dislocation by traction on the limb held at right angles to the trunk. A recent case was narrated in which this treatment was successful, chloroform being given. Dr. McLeod drew attention to this method in 1886, but it is one of great antiquity, being mentioned by Celsus.

Mr. HORROCKS read notes on a case of Hip-joint Disease with Unusual Symptoms. The patient had worn a spinal leather jacket for two years, the back having been injured by a fall. An abscess formed in the thigh and had been incised and drained. Under chloroform the sinuses were enlarged. No bare bone was detected. The femur moved freely at the hip-joint. On opening the joint the neck of the femur and part of the acetabulum were found to be diseased. The ligamentum teres was destroyed, and the head of the femur was necrosed. The head of the femur was excised.—Dr. GRAY described the after-progress of the case, which was satisfactory.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Diabetes Mellitus.—Ophthalmia Neonatorum.—Exhibition of Cases and Specimens.

A MEETING of this society was held on March 14th, Dr. ARGYLL ROBERTSON, President, being in the chair.

Dr. JAMES read a paper on the Blood in Diabetes Mellitus. Most observers, he remarked, had found in diabetes that, contrary to what might be expected in a wasting disease, the blood showed an increase in the number of corpuscles and richness of hæmoglobin. During the last few years he had made observations in a large number of cases of diabetes mellitus. In 13 cases the corpuscles were: over 6,000,000 in 5 cases, over 5,000,000 in 5 cases, over 4,000,000 in 2 cases, and over 3,000,000 in 1 case. The hæmoglobin was over 100 per cent. in 3 cases, over 60 per cent. in 8 cases, and over 50 per cent. in 2 cases. Was this increase the result of a lessening in the amount of water? Were this so the specific gravity of the blood should be increased. He had estimated the specific gravity by Roy's method, but no increase was found. A table giving the results was shown. He contended that the increase in the number of corpuscles was real, not merely apparent, and was an effort on the part of the organism to make up for the great loss of oxidising material to the tissues by increasing the oxidising power of the blood. In support of this view he pointed to the effects of starvation, the loss of corpuscles and hæmoglobin being small in proportion to the other tissues of the body. Additional evidence was found in the digestive power of diabetics; he thought nature tried here to make up for the loss of oxidisable material by increasing the primary digesting power. It would be interesting to know, Dr. James said, if the condition of the blood had any relation to the course of the disease. In his experience the blood was richer in the more vigorous cases, but little could be said on this point.—Dr. PATON asked how could it be possible to get increased production of corpuscles in diabetes, and where did the proteid come from to form the corpuscles and hæmoglobin?

Dr. W. G. SYM read a paper on Ophthalmia Neonatorum, especially in regard to its prevention. He reviewed the general treatment by astringents and said that the secret of success consisted in leaving no pus in the conjunctival sacs to come in contact with the cornea. Many instruments had been devised, but an ordinary hairpin was, in his opinion, the best. In prophylactic treatment the conjunctiva should be cleansed before removing the vernix caseosa, which acted as the natural protection of the eye. Ophthalmia neonatorum caused a large number of cases of blindness—blindness which was, however, quite preventable. It was, as he thought, more common in England than in Scotland, owing probably to the larger number of confinements attended by midwives in England. In many cases when the condition arose the midwife was careless or even hostile to the calling in of a medical practitioner. In certain States of America it was a criminal offence on the part of the midwife to neglect to call in a qualified practitioner if the child's eyes became sore. In some towns in England and Scotland precautions were taken by the authorities. Thus in Glasgow a pamphlet containing recommendations as to what should be done if the eyes should be affected was handed to each couple registering the birth of a child. Such measures had an excellent effect in diminishing the number of cases of ophthalmia neonatorum and ought to be applied in Edinburgh.—Dr. ARGYLL ROBERTSON and Mr. JOSEPH BELL made some observations and Dr. SYM replied.

Dr. MICHAEL DEWAR showed a case of Diphtheria treated by Antitoxin. The child had been in a practically moribund condition when injected with the antitoxin serum. Under the treatment she had made a good recovery.

Dr. JAMES CARMICHAEL showed a boy aged nine years suffering from Chronic Peritonitis, but now in process of recovery. On admission to the Children's Hospital he weighed forty-three pounds; his weight was now forty-nine and a half pounds. The abdomen was now quite soft and much smaller. This case seemed to show that surgical treatment was not always necessary.

Dr. CARMICHAEL showed for Dr. BURN MURDOCH a child with Patency of the Ductus Arteriosus who had also acquired cardiac disease. A loud systolic murmur was heard over the præcordium. There was a marked systolic thrill in the second interspace. There was no cyanosis.

Mr. CAIRD showed a specimen of Perforation of the Stomach in connexion with Carcinoma of the Pylorus. A Wertzel's gastrostomy was eventually performed, and the patient did well for twelve hours, but was again seized with pain and died.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.

A MEETING of this society was held on March 6th, Dr. W. L. REID, President, being in the chair.

Dr. T. KENNEDY DALZIEL showed a large Multilocular Cyst removed from the abdominal cavity of a young woman. The tumour before operation had been regarded as probably an ovarian cyst with a long pedicle, no manifest pelvic origin being evident. Abdominal incision revealed a multilocular cyst situated behind the mesentery with a pedicle passing directly to the spine. Examination showed the cyst to have been formed from the kidney. The kidney tissue was entirely replaced by the cystic growth, which had passed inwards from the normal position of the kidney towards the middle line. It was noteworthy that a tumour of renal origin had existed without producing bulging or percussion dulness in the flank.—Dr. Dalziel also showed a Scapula removed by operation for a sarcomatous growth which, originating from the spine of the bone, had extended into the supra- and infra-spinous fossæ and had also penetrated the bone so as to appear on its ventral surface.

Dr. KNOX showed a man aged sixty-five years who had been operated on forty years ago for Vesical Calculus by the late Dr. Wm. Lyon. He had remained in good health until quite recently, when he again began to complain of symptoms suggestive of stone in the bladder. The sound detected some calculous formation which appeared to be embedded in the mucous membrane. Under the use of solvents several small phosphatic masses came away and the patient was now entirely free from symptoms.

Dr. H. C. CAMERON showed a patient aged sixty-six years the subject of Phthisis Pulmonalis and upon whose tongue there was a tuberculous ulcer. The ulcer was situated on the under surface of the tongue in the middle line, and it was suggested that its localisation was due to the irritation of the tongue by the sharp edges of the lower incisors in the act of coughing. It was presumably infected from the

sputa. Dr. Cameron had treated a similar case by filing the teeth and afterwards, the ulcer failing to heal, by excising a V-shaped piece of the tip of the tongue, including the ulcer. The microscope revealed the tuberculous character of the ulcer.

Dr. BARLOW showed a patient aged nineteen years who, nine years ago, as the result of a fracture of the right humerus, suffered from Musculo-spiral Paralysis. At that time the nerve had been cut down on and was found to be embedded in callus, and this had been removed. No response to either the Faradaic or galvanic current could be obtained until thirty-six days after the operation, and the arm had remained weak for many months. Ultimately complete power was restored.

Dr. WORKMAN showed a Brain in which the Middle Lobe of the Cerebellum was replaced by a Bulky Tumour, the mass displacing the lateral lobes and extending forwards to the ventral surface of the medulla. The microscope showed the growth to consist of great numbers of round cells with a fine neuroglia network and very numerous bloodvessels.—Dr. BARLOW stated that the patient, a girl aged four years, had suffered from vomiting, giddiness, and occipital headache. Strabismus, optic neuritis, and a marked inclination to fall backwards when attempting to walk were also present. The knee-jerks were slightly exaggerated. It had been decided to trephine the lower occipital fossa with a view to relieve tension or, if possible, to remove the tumour, but before the operation was performed the child suddenly became unconscious and died, the respiration conspicuously failing for many hours before death, though the pulse remained good almost to the end.

Dr. H. C. CAMERON showed a large Sarcomatous Tumour removed from the abdomen of a female infant aged eleven months. The tumour had originated in the right kidney the renal tissue being spread out over its upper surface. It was first observed when the child was seven months old and apparently caused the patient little or no discomfort; there was no hæmaturia. Enucleation was easily performed and the patient made a good recovery.—Dr. Cameron also showed a Sarcoma originating in the Ovary and removed by operation from the abdomen of a girl aged eight years. At the operation it was found that the growth had invaded the mesentery, the colon, and the bladder wall. The only symptom had been some urinary difficulty, which first occurred in January; subsequently the tumour appeared and grew very rapidly. Dr. Cameron, in remarking upon the case, referred to a similar tumour which he had removed from a child aged three years in whom there had been considerable enlargement of the mammæ and growth of pubic hair.—Dr. Cameron also reported a case of Traumatic Aphasia the result of a fall from a height of fifteen feet on to a concrete floor. There was an extensive contusion in the right occipito-parietal region but no depression or fracture of the bone. The patient remained for a fortnight in a state of stupor with at times convulsions. After this he began to show signs of returning consciousness and gradually began to reply to simple questions. The feature of special interest was that for a long time after his ability to read and to name objects shown to him seemed normal he was quite unable to write correctly to dictation. Ultimately he made a good recovery. His memory of the events of the day on the afternoon of which the accident happened had entirely disappeared. It was suggested that the lesion was in the third left frontal convolution and was the result of *contre-coup*.

Dr. KNOX showed a Cystine Calculus weighing three drachms and about the size of a pigeon's egg removed by lithotomy from a man aged forty-five years. The patient some four years ago had been seized with sudden pain in the bladder and inability to micturate, and the use of the catheter was needed. After this he passed two small calculi and then remained well until August last, when symptoms of stone in the bladder appeared. The sound readily detected a calculus of some size. The urine was free from albumin, pus, and blood, but gave a copious deposit of cystine crystals. Dr. Knox had had some experience of an attempt to crush a cystine calculus, and the stone had been so tough that the attempt had failed and lithotomy had to be performed. Hence in the present case he had at once proceeded by the cutting operation. The patient made a good recovery and no cystine could be found in the urine after the secretion began to pass per urethram.

Dr. EDINGTON showed a number of Photographs illustrating various Surgical Ailments.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

Choreic Spasms.—Exhibition of Cases.

A MEETING of this Section was held on Feb. 28th, Dr. WALTER G. SMITH being in the chair.

Mr. WALTER BERNARD (Londonderry) exhibited a tall, stout, well-nourished, healthy man aged twenty-two years, who was one of twins, and had no family history of nervous diseases. His parents stated positively that he never had even a slight illness, with the exception of measles and whooping-cough, from which he made good recoveries. Eight years ago, when writing at school, a slight jerky movement was observed about his right shoulder, and it had continued to increase gradually. The muscles of the right shoulder, arm, and forearm are in a constant state of movement, and the flexors of the fingers are also in frequent action quite independent of the will. He wrinkles his brow frequently and is unable to put his right hand to the top of his head, or to feed himself with it; neither can he button his coat or use a pen with that hand. His shoulder, arm, and hand are at rest only when he is lifting heavy weights, pushing forward a cart, or engaged in manual labour requiring much effort. These movements are worse on Sundays and are increased by rest. When standing he keeps his hand on a chair to steady his arm. His family say the constant movement is present during sleep. The shoulder and arm muscles are remarkably hypertrophied. He walks with his hand a little behind, the arm being stretched out. There are no signs of antecedent hemiplegia, and the "mobile spasms" are not conjoined with rigidity.—Dr. WALTER SMITH said the case seemed to him to belong to the choreic group of diseases.—Dr. CARROLL said he believed that the movements were simply habits acquired in boyhood, and that these habits became more marked as the patient advanced in years. To illustrate his meaning, he described some instances of habit spasms.—Dr. DRURY thought the condition resembled torticollis, although it did not involve the muscles of the neck.—Dr. CRAIG considered that the movement of the arm was of a choreic character and that in all probability it was the result of an infantile monoplegia that had not been recognised.—Mr. BERNARD, in reply, admitted that the movement simulated chorea; the muscles, however, were enormously hypertrophied, and the movements ceased whenever the patient had to do hard work, such as heaving a cart, lifting heavy weights, &c. He had never seen a case of chorea in which the movements did not cease during the night.

Dr. CRAIG reported a case of Transverse Myelitis, involving the lower dorsal and lumbar regions of the cord. Rapid wasting and loss of motion and sensation and reflexes in the lower limbs, together with retention of urine, cystitis, and acute bedsore, ensued. Partial recovery took place, but the limbs were now contracted. The bladder had been washed out daily and every care was taken to prevent the sore from spreading.—Dr. DRURY stated some views of Dr. Gowers with regard to ankle clonus. He discussed the phenomenon of ankle clonus as an aid in differentiating functional from organic diseases. He also discussed Dr. Gowers' method of measuring paralysed limbs.—Dr. BEWLEY said that ankle clonus was not, in his opinion, a symptom of what was known as functional nervous diseases.

The following specimens were exhibited:—

Dr. J. B. COLEMAN: Athetosis.

Dr. WALTER G. SMITH: Favus of the Scalp in a Child, with Microscope Slide of the Characteristic Fungus. One-half of the scalp was treated with chrysarobin ointment and the other half with weak resorcin ointment, but it was too soon as yet to say which of them would give the best results.

Dr. A. R. PARSONS: Trophic Disturbance following Injury to the Median Nerve in a woman.

ULSTER MEDICAL SOCIETY.

The Early Symptoms and Treatment of Puerperal Fever.—Exhibition of Specimens and Cases.

THE monthly meeting of this society was held in Belfast on March 5th, Professor SINCLAIR, F.R.C.S. Eng., the President, being in the chair.

Professor BYERS read a paper on the Early Symptoms and Treatment of Puerperal Fever. These early symptoms were elevation of temperature and quickness of pulse, but this question of temperature and pulse raise two other important points: (1) the effect of the lying-in period on these phenomena; and (2) the rise of pulse and temperature produced during the lying-in period by conditions other than puerperal infection. He believed that with aseptic and antiseptic precautions the pulse and temperature differed very little during the lying-in period from that of the non-puerperal condition. In reference to the second question he related a series of cases where other intercurrent diseases had raised the pulse and temperature during the puerperium. He believed, however, that in the vast majority of cases rise of pulse and temperature occurring in the first few days after delivery indicated puerperal infection and demanded immediate local treatment. He described the types of puerperal infection and advocated before commencing any plan of treatment a thorough examination of the patient to see whether there was any local lesion of the pelvic floor, vagina, or cervix. The appropriate treatment of these lesions was indicated. In case the disease started from the uterus (as it most commonly did) he advised the digital exploration of that organ, and discussed the following methods of treatment: (*a*) intermittent irrigation, (*b*) continuous irrigation, and (*c*) curettage, and stated the conditions which, in his opinion, demanded either of these plans and when they should be employed. Cases were reported in which these methods had been used. Finally, the question of abdominal section, the use of antistreptococcic serum, and constitutional treatment were discussed; and, in conclusion, Professor Byers urged the importance of the early local treatment of the disease.—In the interesting discussion which followed Dr. GAUSSEN, Dr. SMYLY, Dr. KEVIN, Dr. ISAAC DAVIDSON, Dr. J. J. AUSTIN, and Dr. JOHN CAMPBELL took part, and Professor BYERS replied.

Dr. LORRAIN SMITH gave a demonstration of Tumours of the Breast.

Dr. W. A. MCKEOWN made some observations on Unripe Cataract, and showed a series of cases illustrating his method of operation.

Reviews and Notices of Books.

Pathology and Treatment of Diseases of the Skin. By MORIZ KAPOSI. Translated from the last German edition under the supervision of JAMES C. JOHNSTON, M.D. London: Baillière, Tindall, and Cox. 1895. Price 25*s*.

EVEN dermatologists who can read German will welcome a standard work like this in an English dress. In France it obtained long ago the distinction not only of being translated by Doyon but of being richly annotated by Besnier, which doubles its value by the comparison of the views of the Austrian and French schools. The work has been so long before the world and is so well known that it does not require a detailed review, but to those to whom it has not been previously known it may be pointed out that Kaposi, as the pupil, son-in-law, assistant, and finally successor to Hebra, gives in fifty-three lectures not only a compendious view of the subject but sets forth as no other man could the views of his great master modified by his own vast experience, close observation, and critical acumen. It is none the less interesting that the strong personality of the author is everywhere apparent, but while these lectures set forth dermatology as it is taught in Vienna it must not be regarded as an exponent of the most modern dermatological views of the rest of the world. The advances made in dermatology in England, America, and France meet with but scant recognition compared with those in North and South Germany; but to those who already possess a knowledge of the subject this is an advantage, as there are so many good works in English and French that a book drawn chiefly from the German standpoint is an interesting and instructive contrast. The English practitioner must be warned against using except with caution some of the more vigorous methods of treatment for chronic eczema and some other obstinate diseases. Not that their efficacy is disputed, but because they are capable of doing great harm in inexperienced hands, and in Germany the system of private hospitals so much in vogue enables the patient to be more closely watched, so that the advantages of vigorous treatment may be obtained and the disadvantages averted by stopping the remedy at once when the special object of the treatment has been reached. To all who are interested in diseases of the skin we earnestly commend the work for perusal, but we also advise them not to let it be the only one studied, but to read it along with the best American or English modern treatise.

The translator appears to have done his work well and produced a translation in clear and readable English. Nor are there any notable Americanisms, as the nationality of the translator might lead one to expect and excuse. The type also is clear and the book well got up. A commendatory preface has been written by Dr. George H. Fox of New York.

Woman Free. By ELLIS ETHELMER. Published by the Women's Emancipation Union. 1893. Price 5*s*.

As far as we can follow the author through the sixty-three stanzas of verses of eight lines each the object of his or her versemaking is to bewail the lot of woman in that she is subject to the function of menstruation, and also to ascribe the fact that she is so to the brutality of man:—

> "For carnal servitude left cruel stain,
> And falls that fester from the fleshly chain;
> Unhealed the scars of man's distempered greed,
> The wounds of blind injustice still they bleed;
> Recurrent suffering lets her not forget
> The aimless payments of a dismal debt,
> Survival from dim age of man's abuse
> Of functions immature, profaned by savage use."

Books on subjects of this kind can only justify their existence if written for scientific purposes on scientific lines. Otherwise undertaken the outcome can only be more or less nasty and must excite the contempt of all right-thinking men and women. Thirty pages of verses about sexual matters, treating various assumptions relating thereto as if they were as true as, for instance, the law of gravity, are bad enough, but what is to be said when we find the thirty pages in question followed by nearly 200 pages of "Notes, &c."? It is somewhat amusing to see extracts from such feeble trash, carefully annotated and explained, for all the world like a school edition of "Hamlet" or "Paradise Lost." The calibre of the writer may be reasonably measured by the following extract from the Notes xxv., 1:—"*Vicarious punishment:* Revolting was the shock of the writer, coming some years ago, with unprejudiced and ingenuous mind, to the study of the so-called 'Diseases of Women,' on finding that nearly the whole of these special 'diseases,' including menstruation, were due, directly or collaterally, to one form or other of masculine excess or abuse." The truth is that books in which the relation of the sexes is considered nowadays come in one of the following two categories: either in the form of novels, in which case they lie on the drawing-room table; or, the question being soberly and scientifically treated, as in standard medical books, they naturally find a place in the medical library. This book is neither of the one kind nor of the other; it has not the slightest claim to admission among scientific medical works, and most assuredly it is not a novel to leave on the drawing-room table. We think such books may easily do incalculable harm to the youth of either sex.

Cahier de Feuilles d'Autopsies pour l'Étude des Lésions du Névraxe. Par le Dr. J. DEJÉRINE, Professeur Agrégé à la Faculté de Médecine de Paris, Médecine de la Salpêtrière. Paris: Rueff et Cie. 1895.

ANY work bearing the name of Dr. Dejérine must

command respect. This atlas adds abundant testimony to the thoroughness and almost ultra-German minuteness of the investigations pursued at the Salpêtrière. It is printed on large paper, 14 in. by 11 in., and consists of a series of diagrams of the central nervous system, for use in the post-mortem room and the pathological laboratory, in order to clearly record the lesions found. There are eleven diagrams of the external surface of the cerebral lobes, four vertical sections through the lobes made at the anterior and posterior extremities of the corpus callosum, six horizontal sections cutting through the upper part and the middle of the optic thalamus and a point just below the optic thalami. Two cross sections of the peduncles are shown passing through the anterior and posterior corpora quadrigemina, three cross sections of the pons at its upper middle, and lower portions, and three cross sections of the medulla; one diagram of the spinal cord as a whole, marking out the nerves; and four cross sections of the cord. In all of these the details are filled in, and by letters scattered over the diagrams reference is made to a full descriptive table printed below. Ample space is left for writing in all but the horizontal sections, where more room would be an advantage. The abundant lettering over the diagrams is a little confusing at first, but no other way suggests itself by which equal accuracy could be maintained. The lettering is very dark, and if painted thinly over in water-colour stands out well. The sheets are perforated at the left edge so as to be readily removed.

In a short introduction Dr. Dejérine gives precise directions as to the best cuts to make in the examination of the fresh brain, and enters a well-grounded protest against any minute examination until the structures have been hardened. Numbers of specimens are constantly spoilt in the useless attempt to accurately define lesions of the brain immediately after removal from the skull.

The only possible criticism is the criticism of the busy man, that the plan is over-elaborate. We would nevertheless strongly recommend this atlas to the busiest and the least busy of pathologists.

The Transactions of the Ophthalmological Society of the United Kingdom. Vol. XV. 1894–95. London: J. & A. Churchill. Price 12*s.* 6*d.* Pp. 265.

THIS volume opens with the Bowman Lecture, a lecture that is yearly or periodically given in memory of the chief of the founders and the most munificent patron of the Ophthalmological Society. It was delivered on June 14th, 1895, by Dr. W. R. Gowers, who took for his subject Subjective Visual Sensations, chiefly describing those forms of disturbed visual sensation which are associated with migraine and epilepsy, of which many had fallen under his notice. Dr. Gowers gave examples of failure or disorder of peripheral colour sensation, micropsy and macropsy, with curious pericentral and arch spectra, and has illustrated his lecture with many coloured drawings. Amongst the more important papers are those by Mr. Simeon Snell on Chancre of the Eyelid and Conjunctiva, of which he has collected nine cases; a case of the rare affection Osteoma of the Conjunctiva and another of Tuberculous Keratitis, by Mr. Hartridge; cases of Membranous Conjunctivitis, by Mr. Jessop, in which Löffler's Bacillus was found and which were successfully treated by antitoxin; cases of Discolouration of the Cornea with Blood Pigment, and of the relation between Lamellar Cataract and Rickets, by Mr. E. Treacher Collins; and a case of Alveolar Sarcoma of the Cornea, by Mr. E. Donaldson. Dr. W. A. Brailey supplies a paper on the Iritis of the later stages of Syphilis, the average time of its occurrence being, he thinks, about thirteen years after the primary sore and the form of the iritis being that known as "serous." A remarkable case of Filaria Loa which fell under the observation of Dr. Argyll Robertson is fully reported and presents some interesting features, especially in being in all probability the hitherto undiscovered male of this species. Mr. George Mackay contributes an important article on Eyesight in the Public Services, in the course of which and in the discussion that followed some severe strictures may be read on the present rules for admission into the Services. The volume is illustrated by nine chromo-lithographed plates, some of which present remarkable forms of cataract, by Dr. Lindsay Johnson and others.

Transactions of the Dermatological Society of Great Britain and Ireland for 1895. London: H. K. Lewis. Price 5*s.*

IN the first volume of the Transactions of this new society the most important communications are the inaugural address by the President, Dr. Pye-Smith; an address on the Thyroid Treatment of Skin Diseases, by Dr. Byrom Bramwell; a review of the different methods of treating Lupus Vulgaris during the last twenty years, by Dr. Stopford Taylor; an excellent critical *résumé* of the supposed connexion of Syringomyelia and Leprosy, by Dr. Cagney; a curious Septic Eruption in a red and white steer in which the superficial layers, with the hair of the white part peeled off in large strips, while the red part of the skin was unaffected, by Mr. Wilson Barker, M.R.C.V.S.; and a case of Acute Fatal Pemphigus, by Mr. George Pernet, with bacteriological investigation by Dr. W. Bullock. Altogether the volume is an interesting one.

An Essay on Malaria and its Consequences. By ROBERT LINDSAY, A.M., M.B. Aberd., F.R.C.S. Edin., Retired Surgeon, Army Medical Department. London: H. K. Lewis. 1895.

A GOOD deal of discussion is taking place at the present time in regard to the exact nature and significance of the bodies found in the blood of malarious patients known as Laveran's parasites and their causal connexion with the phenomena manifested in the different varieties of malarious fevers. But all reference to this discussion is conspicuous by its absence in this essay. Volumes have been written upon the supposed cause of malaria. It has been searched for in earth, air, and water with but little result. This essay, we are bound to say, is not calculated to throw much light upon the subject. The author has apparently a theory of his own, in which he labours to prove that carbonic acid plays the part of the main factor. Long periods of speculative reasoning relieved by remarkably few full stops make the book a very difficult one to read. We are constrained to say that we fail to see how any really scientific or useful object or any addition to our knowledge of malaria has been attained by its publication.

Encyklopädie der Therapie. Herausgegeben von OSCAR LIEBREICH unter Mitwirkung von MARTIN MENDELSOHN und ARTHUR WÜRZBURG. Erster Band, II. Abtheilung. (Encyclopædia of Therapy. Edited by OSCAR LIEBREICH with the assistance of MARTIN MENDELSOHN and ARTHUR WÜRZBURG. Vol. I., Part 2.) Berlin: August Hirschwald. 1896.

THIS forms the second instalment of the first volume of this encyclopædia. It takes in as far as Cera and we reach page 592. The whole work will be in three volumes of about 800 pages each. By a liberal interpretation of the meaning of "therapie" articles more strictly suited to a system of medicine or physiology are included. The labour expended on the production must be immense, but the value of the result is very problematical. In any good library of any small German town the more important of the works of the authors who contribute to these pages will be

found. These naturally contain their views more fully and more readably expressed. No references are given at the end of the articles and so no means are afforded of remedying the feeling of incompleteness not rarely produced. A few of the contributions are masterly—e.g., Ewald on Auto-intoxication, Senator on Bright's Disease, and Oertel on Bradycardia. But much is very dull and not a little quite useless.

The Science and Art of Obstetrics. By THEOPHILUS PARVIN, A.M., M.D., LL.D., Professor of Obstetrics and Diseases of Women and Children, Jefferson Medical College, Philadelphia. Third Edition. Edinburgh and London: Young J. Pentland. 1895.

THE first edition of this work appeared in 1886 as a complete exposition of the science and art of midwifery by an obstetrician of over thirty years' practical experience, during twenty of which he was a teacher. Such an education was an excellent preparation for the writing of a text-book which would prove useful alike to students and practitioners. Men with a long record like that of the Professor of Obstetrics at Jefferson Medical College are usually too busily engaged in practice to prepare a text-book, and thus, after having from personal observation collected material as a basis, have difficulty in finding time and opportunity to complete such a task. Very often, therefore, text-books are prepared by younger men who, without much experience, merely summarise the accumulated literature of the subject, and not always in the most methodical manner, for students. Dr. Parvin's book has proved a good text-book, and its cordial reception both in this country and in America showed that it was much appreciated, for it was soon followed by a second and now we have to record the appearance of a third edition, much of which has been rearranged and rewritten. As a rule, it is abreast of the recent advances in midwifery, but in some of the chapters—as that on Cæsarean Section—we expected to find it a little more up to date.

LIBRARY TABLE.

Clinical Lectures on Mental Diseases. By T. S. CLOUSTON, M.D. Edin., F.R.C.P. Edin. Fourth edition. London: J. and A. Churchill. 1896. Price 14*s*.—We congratulate the able author of this text-book on the appearance of a fourth edition. The value of the work is generally recognised, and the importance of the new edition is increased by valuable additions, which bring it up to the present level of knowledge. In the appendix are three new coloured plates which illustrate typical changes in the brain cortex in certain forms of insanity. The cellular degeneration which takes place in general paralysis is particularly well represented. A considerable number of new clinical facts are embodied in the text. Dr. Clouston attributes great value to thyroid extract as a powerful therapeutical agent. In large doses he has found it of marked benefit in cases that threaten to become chronic, and he is strongly of opinion that no case should be allowed to become incurable without a trial of this method. The large amount of practical teaching contained in this book readily appeals to the practitioner and the student, and the new edition ought to extend the already wide circulation of a favourite work.

Original Investigations on the Natural History (Symptoms and Pathology) of Yellow Fever. 1864–94. By JOSEPH JONES, M.D., LL.D. New Orleans, Louisiana. Reprinted from the Journal of the American Medical Association. Chicago: American Medical Association Press. 1894.—The author of this volume has seen a great deal of yellow fever, and has, consequently, had ample opportunities of studying its symptoms and pathology. It is possible that some of our readers have already had an opportunity of perusing Dr. Joseph Jones's investigations, which are reprinted from the Journal of the American Medical Association. The volume exhibits much learning about the subject generally and contains a great deal of clinical material and a record of cases with pathological observations.

MEDICAL CERTIFICATES FOR THE LONDON BOARD SCHOOLS.

ON March 5th a meeting of medical practitioners was held at 20, Hanover-square. Dr. J. G. Glover took the chair, and the following resolutions were unanimously passed:—

Resolution 1.—That this meeting of medical men interested in the question of School Board certificates for Board School children, as affected by the Resolution of May 30th, 1895, records its opinion that the system so adopted is offensive to the profession and is likely to be disastrous to the health of the children in the schools.

Resolution 2.—That this meeting is of opinion that pending the alteration of this system medical men should decline to supply certificates to the children attending Board schools.

Resolution 3.—That the above Resolutions be transmitted in the name of the meeting by the Chairman to the Chairman of the London School Board, with a respectful request that the policy of the Resolution of May 30th be revised by the Board, so as to secure the hearty coöperation of the medical profession in protecting the children of the elementary schools from infectious and other diseases, and securing the proper attendance of the children.

The Chairman was requested to forward the resolutions to the Board, and we hope that that body will cease from its ostrich-like policy of sticking its head in the sand. To our minds the Board much resembles the Turks. Everybody knows there are but two ways of getting anything out of a Turk. One is to bribe him, the other is to kick him. So with the Board. Say it is doing a magnificent work, is rearing a race of Huxleys, Tyndalls, and Voltaires and go out into the highways and compel the maimed, the halt, and the blind to come in and sit upon a scientifically constructed seat in a temperature of 63°, and the board will gather up its grant and do anything it is asked. The other way, which we much prefer, is that taken in Resolution 2. We do not remember having seen among the thirty-six subjects of study taught by the Board that of French history, but no doubt the Board will recollect that there were two degrees in severity of examination in the French courts. These were the "question ordinaire" and the "question extraordinaire." The former has been tried with the Board without effect apparently. It remains to apply the latter.

THE CASE OF MR. R. B. ANDERSON.

THE Council of the British Medical Association is supporting Mr. Anderson and recommending his case to the favourable consideration of the branches, to which copies of petitions to members of Parliament are being sent by the Civil Rights Defence Committee for the purpose of securing the signatures of constituents. The following letter, which we have been requested to publish, refers to this subject:—

[COPY.]

Ed. Cureton, Esq., M.D., &c., President of the Shropshire and Mid-Wales Branch of the British Medical Association.

DEAR SIR,—May I ask you to accept my very sincere thanks, and to convey them also to the Branch, for the very valued and powerful support which the course taken in addressing members of Parliament for boroughs and divisions in the district of the branch will be certain to bring us.

Your strong expression of sympathy before the first interim report was published was amongst the influences which then and since (*vide* pages 37 and 41 of that report) have so greatly aided in giving confidence to the committee in its difficult and novel undertaking, and encouraged me to carry on what so many have told me was a hopeless struggle, and which, but for the kindness of many friends and such generous expressions from my professional brethren and the medical press, must have been far beyond my spirit and my strength.

May I ask as a particular favour that the steps taken by the branch should be fully mentioned in the notice of the meeting for publication, and I trust you will have no objection to my publishing this letter.

I am, dear Sir, yours very faithfully,

30, Montague-place, London, W.C. R. B. ANDERSON.
Feb. 27th, 1896.

THE LANCET.

LONDON: SATURDAY, MARCH 14, 1896.

SCARCELY have the echoes of the last great International Medical Congress died away when we find ourselves within measurable distance of its successor. From Rome to Moscow, from the capital of ancient Western Europe to the capital of modern Eastern Europe—for Moscow rather than the city on the Neva is the true capital of the TSAR'S empire—is a far cry. To the untravelled the name of Moscow may have a distant, even an inaccessible, sound; but the untravelled are few in number in the present day, and the traveller has learnt to regard distance as a matter of little moment. There is, therefore, small reason to doubt that the hospitable invitation of the Russians will be as warmly and as numerously responded to next year as was that of the Italians two years ago or of the Germans in 1890. It is already some months since the Medical Faculty of the University of Moscow began their not altogether easy task of organising the next Congress and framing the regulations which shall guide its actions. With each succeeding Congress that task must of necessity become heavier. For, firstly, as the experiences of Berlin and of Rome have proved, the numbers who attend these international meetings are becoming ever larger and larger, and, secondly, medical science is a very rapidly expanding one—perhaps the most rapidly expanding of all sciences. Each of these considerations gives rise to new responsibilities and need of fresh adaptations on the part of successive organising committees.

We print to-day two communications which we have received through our St. Petersburg correspondent from Professor ERISMAN, the general secretary of next year's Congress, and it will be seen that the Russian executive committee has already made praiseworthy attempts to deal with some of these responsibilities. On the difficulty arising from the mere physical accommodation of excessive numbers of visitors the committee has at present nothing to say, though, with the recollections of the Medical Congress in Rome in 1894 and of the Hygienic Congress in Budapest in 1895 fresh in our memory, the hope may be expressed that some serious attempt will be made to improve upon those congresses in this respect. But a cognate difficulty, that of the languages in which men of so many different nationalities shall be allowed to hold commune, is discussed in the first of the two documents, and the conclusions of the committee on this point are there stated and defended. That they needed some defence all will admit, but it is our duty to question whether the defence is altogether successful. The experience of congresses in the past has certainly pointed to the desirability of limiting the number of languages which should be admitted in the discussions, and the suggestion which was made after the last Congress in Rome, that some single language should be chosen as the official language of future congresses to the exclusion of all others, was theoretically an admirable one. In practice, however, it is open to doubt whether such a suggestion could be carried out. There is now no longer, as in the past, one common language of the learned. Although French may claim to have in some respects succeeded Latin in that honourable position, the claim is but partially founded. There are many truly learned men in all countries who are unable to speak or write in any but their native tongue. An even more practical consideration arises from the fact that in whatever country an International Scientific Congress, whether medical or otherwise, may be held, it will prove almost impossible to exclude the language of that country from the discussions. A second language once admitted, the way is open for others. This has proved to be the case in the present instance, and the Russian Committee, having allowed Russian in addition to French, found it impossible to exclude German. And now, having included Russian and German, it does not seem easy to find any good reason why English should not also be permitted. A language which is spoken by a numerically larger number of individuals than any other civilised tongue, the language in which HARVEY and JENNER announced their immortal discoveries, in which ADDISON and BRIGHT first described the diseases which will probably for ever bear their names, and in which, from the days of WILLIS and SYDENHAM down to those of GRAVES and LISTER, some of the mos splendid and lasting work in the field of medicine has been communicated to the world, has claims upon international respect second to no other. We make these remarks out of no feeling of petty national jealousy; the thoughts of which they are the expression arise as an inevitable corollary to the conclusions of the present executive committee. There are still seventeen months before the date of the next Congress, and there is, therefore, ample time for a reconsideration of this not unimportant question. If the regulation concerning languages remains as it at present stands it will have the effect of deterring large numbers, not only of Englishmen, but also of Canadians, Americans, Australians, and others from attending the next Congress or from sending papers to be read at it.

With the object of the second communication from Moscow we are glad to be in hearty accord. It deals with the subject of specialism and the division of the forthcoming Congress into sections. The increase of specialism in recent years is to some extent an index of the growth and expansion of medical science to which we referred earlier. Within certain limits it is not only necessary but desirable. It is only when those limits are exceeded that it becomes open to objection—when the too great concentration upon the diseases of one organ or group of organs leads the specialist to take a narrow view of his responsibilities and to forget that his true function is to restore, so far as he may be able, complete bodily health to his patient, and not only to deal with the local condition of one particular organ; in other words, to forget that he is a physician or surgeon first and only a specialist afterwards. The executive committee of the next Congress has taken a broad view of this question. It has diminished the number of sections to twelve by uniting several specialties which formerly ranked as separate sections under more general headings, such as those of Surgery,

Therapeutics, or Hygiene. Thus to the first will now be added diseases of the throat, ear, and teeth, and all matters connected with military and naval medicine; to the second, hydro-therapeutics and climato-therapeutics; and to the third, railway hygiene and sanitary technique. The specialist will not be a loser by this new arrangement, but rather a gainer. His opportunities for making communications or fully discussing those of others will not be lessened, but his audience will be a wider one. The laryngologist or otologist will be enabled, if he wishes to do so, to interchange experiences with the ophthalmic or abdominal surgeon; and this will be no disadvantage to either, but rather of actual benefit to both. Specialism is but the special application of general principles, and a return to general principles can scarcely be too frequent, while advance in knowledge or in technique in one specialty is extremely likely to lead to similar progress in another. From another point of view the excessive sub-division of former Congresses into sections was not to be commended. It was unpractical and led to needless complication and confusion. It could, for example, have served no possible end to divide Railway Hygiene, or the laws of health as applied to railways, from General Hygiene, or the laws of health as applied to any other of the countless phenomena of modern social life. In returning to a more simple division of the subjects to be discussed at the next Congress the Russian executive committee has taken a step in the right direction and one that will meet with general approval.

THE ignorance of the poor in regard to everything connected with the prevention of disease and the nursing of the sick is so notorious that it is not surprising to find associations springing up throughout the country having for their object the enlightenment of the masses and the provision of nurses for the afflicted poor. One of the results of this movement is the employment of women selected from the working classes whose training has been limited to a three or six months' course in some institution engaged in district nursing. Using the title of "nurses," we have, therefore, at the present time all grades, from the trained hospital "nurse" who has spent three years in the medical and surgical wards of a hospital to the "nurse" who has only spent three months in a district home. Between these are others, such as the Jubilee nurse, who has had at least one year's hospital training and six months' training in district nursing, with or without an additional three months' experience in midwifery.

The Jubilee nurse has, however, been found altogether too expensive a luxury for many poor and thinly popu'ated districts, and in several counties associations have been formed for selecting women for short periods of training, defraying the expense of such training, and afterwards finding districts for them in which to exercise their vocation. Certain of these associations have been in existence for some time, sufficiently long, indeed, to test their utility and to enable the promoters to express an opinion upon their success in fulfilling the object for which they were formed. There appears to be ample evidence to prove that women who have had six months' training in district nursing are most useful as nurses in cottage homes, and that they may be depended upon to carry out faithfully the orders of the medical attendant. Such being the case, the Countess of WINCHILSEA recently convened a meeting of representatives of each county in which such nurses are engaged, with the object of agreeing upon some common principles, especially as to the standard of training, inspection of the nurses, and the utilisation of grants from county councils for teaching the elements of nursing. Representatives from eight counties attended the conference. Great diversity was found to obtain in different districts, especially with reference to training, but it was agreed that six months' practical work in a good district home was desirable as the minimum. It appeared to be impossible in all counties to find a sufficient number of suitable women who can afford to pay for the necessary instruction, and funds had therefore to be raised for this purpose by subscriptions and donations or indirectly by county council grants for nursing scholarships. The majority are trained under Sister KATHERINE at Plaistow, but the Essex County Nursing Association has its own training home at Leytonstone. In both these homes the women are trained in district nursing and are required to attend a course of lectures extending over six months. At Leytonstone the course comprises "First Aid," "Nursing," and "Hygiene," the lectures being given by a qualified medical man; "Monthly Nursing," given by the sister in charge; and "Invalid Cookery," the demonstrations being given by the county council instructress. All these lectures and demonstrations are open to the general public and are subsidised by a grant from the county council. Apart from the training, both these homes are doing good work in the East of London among the very poor.

This lower grade of nurse is meeting a want; the multiplication of grades is becoming confusing and it would be well were some distinctive titles generally recognised to prevent misconceptions arising. The hospital trained nurse might be specially distinguished as a "trained nurse," the nurse who has received a shorter course of training in a hospital supplemented by district work might be called a "district nurse," and this would include most of the Jubilee nurses, whilst those women who have had not less than six months' training in district nursing only might be known as "cottage" or "village nurses." Women who have not had six months' good training can scarcely claim the title of nurse and could well be designated as "cottage helps." There is an abundant scope for the three latter classes amongst the poor, not only in our large towns, but in our rural districts, and if the numerous associations will only submit to the guidance of experienced members of the medical profession, and not claim for their nurses a status not justified by their training, there is no reason why all the various grades should not render valuable assistance to the busy medical practitioner. Where these nurses are employed even the poorest patients will be attended with an amount of care which must considerably minimise the anxiety of the medical attendant and considerably increase the probability of the patient's recovery. The influence of these women upon the home life of the poorer classes must also be beneficial. We are glad to see that such ladies as the Countess of WINCHILSEA, the Countess of SELBORNE, Lady RAYLEIGH, and Lady BAKER are interesting themselves in this subject, and under their guidance the County Nursing Associations

are entering upon a career which appears to be full of promise. If properly organised it seems most probable that these associations will receive the cordial sympathy and the support of the whole of the medical profession.

THE Milroy Lecturer is selected annually by the Royal College of Physicians of London to deliver a series of discourses upon some subject appertaining to public health, and although the utterances of one upon whom the choice of the College has fallen are rightly received with due respect and consideration, it would be obviously the wish neither of this body nor of the lecturer that criticism or eulogy should be silent. It is, therefore, in no spirit of levity that we venture to offer a few comments upon the manner in which the theory of the aerial convection of small-pox was dealt with by Dr. SEATON in the recent Milroy Lectures. From a perusal of the lecture in which the subject was more particularly treated of it is somewhat difficult to ascertain exactly what is Dr. SEATON'S mental attitude towards the theory in question; but we gather, both from the observations there made as also from his remarks uttered in other places, that he considers the evidence in its support insufficient to justify its acceptance as a working hypothesis. If, however, this is not the attitude adopted by Dr. SEATON we would point out that it is to his method of treatment of the subject in the Milroy Lectures rather than to his individual views that our remarks will be here mainly directed; and for the guidance of those anxious to follow our observations we would add that the lecture in question (No. II.) was printed in full in our columns on March 7th.

It may be taken that the idea conveyed by Dr. SEATON in his second lecture was this, that he was endeavouring to lay before his hearers and readers the arguments for and against the aerial convection of small-pox; and although doubtless not a few of those who heard or have perused the lecture are familiar with the controversy which formerly raged around aerial convection, it will probably be conceded that the majority are far from conversant with the details of the subject, and that they will thus be inclined to conclude that Dr. SEATON'S lecture summarised the evidence on both sides. It will be seen, however, by reference to the lecture in question, that he practically began with the experience of the year 1881—and left off with it; and that he made no reference to the remarkable occurrences around the Fulham Hospital—closely studied like the others—subsequently to that date. Surely these occurrences, forming as they do not only part and parcel of the general inquiry into this subject, but also the strongest confirmatory evidence of the 1881 outbreak, should have been dwelt upon. It must also be remembered that the theory of aerial convection does not now rest solely upon the Fulham experiences, but that since that hospital was closed against small-pox other notable manifestations of incidence of small-pox have occurred around provincial hospitals when they have been used for the aggregation of acute cases of that disease. These occurrences have been inquired into by thoroughly competent observers possessing experience second not even to that which Dr. SEATON obtained at Nottingham, and have been considered by them as explicable, and best if not only explicable, on a theory of aerial convection. The repeated occurrences at Oldham, dealt with in such an able and unbiased fashion by Dr. NIVEN, now the medical officer of health of Manchester, those at Bradford, Leicester, Warrington, and other places, were, save for the most transient reference to Leicester, passed over, although Dr. SEATON professedly dealt with the "experience of the last decade."

In other words, Dr. SEATON left unnoticed the phenomena which have occurred since 1881 to confirm the Fulham experience and to supply to certain hesitant members of the Royal Commission of 1882 the confirmatory evidence which they desired. Dr. SEATON quoted freely from the report of this Commission which held its sittings, be it observed, considerably over a decade ago, and the utterances of which have therefore in the light of subsequent events perhaps lost some of their pristine force. Still, it was with this somewhat antiquated weapon that Dr. SEATON elected to do battle. We will now deal with the lecturer's criticism as directed against the events of bygone years. Dr. SEATON, while fully recognising the merits of the famous inquiry of 1881, considers that there are certain points which must still be left open to question. The first of these he regards as "the possibility, under the circumstances of 1881, of absolutely excluding the other chances of infection in the case of persons attacked in the month of January." Dr. SEATON will, we hope, forgive us if we say that this statement hardly evinces a proper comprehension of the theory under discussion. Aerial convection, be it for short or long distances, is unable to prevent infection by personal communication, and the acceptance or rejection of the theory is in no way dependent upon the rejection of personal communication as a means—obviously an important means—of infection. Doubtless some cases attributed to aerial convection would be explicable, if the fact could be established, by personal communication, and, conversely, cases which may have had opportunity of contracting the disease by personal infection may really have contracted it by aerial convection. The one proposition is not destructive of the other. The whole point of the argument upon which it seems to us Dr. SEATON hardly sufficiently insisted, is that the peculiar distribution of the sudden diffusion of small-pox in numerous instances is, owing to the topographical relations of the hospital to the streets, houses, &c., better explained upon a theory of aerial convection than upon one of personal communication, and had Dr. SEATON dealt with the incidence of the disease in subsequent years on the several quadrants as worked out by Mr. W. H. POWER, F.R.S., this argument would have been more patent to his hearers and readers. We may, perhaps, recall here the fact that in the N.E. quadrant, which was exceptionally traversed by small-pox ambulances and attendants, the incidence was lower than in any other. The influence of the prevailing wind on the distribution of cases in relation to the small-pox hospitals is a point worthy of some attention. It is, to say the least of it, not altogether improbable that a current of air should waft any particles which may contain the germs of variola in the direction towards which it is blowing; but, on the other hand, it does seem rather contrary, both to experience and expectation,

that anything short of a hurricane should blow intelligent persons in communication with the hospital in a direction opposite to that in which they are wishing to travel. Aerial convection is, in the opinion of competent observers who have had experience of the operations of small-pox hospitals, a theory which serves to explain a great variety of observed phenomena, and under these circumstances it would surely be as hypercritical to reject it as a working hypothesis as it would be to reject certain well-accepted theories because atoms and molecules have not been actually demonstrated.

Dr. SEATON, in what may be called his second proposition, asks: "Assuming the possibility of distal (i.e., long distance) infection, what are the probabilities of such a method of infection as compared with the probabilities of proximal (i.e., close distance) infection (meaning by the latter term the infection which takes place in ordinary personal communication)?" Here we are entering the domain of insoluble problems, but we would simply reply that it would appear to be the function of proper isolation to avoid as far as possible the risks both of personal contagion and of aerial convection. In the third proposition the lecturer asks, "Is 'distal infection' a dominant or controlling factor in the spread of small-pox?" Obviously the answer to this question will vary according to circumstances. Finally, Dr. SEATON quotes the opinions of several observers to show that apparently no reliable evidence has as yet been adduced that small-pox hospitals are instrumental in spreading small-pox in rural districts, and he draws attention to the remarks of Dr. MCVAIL, in his paper read before the Epidemiological Society in 1894,[1] that the absence of manifestation in this direction "may be as much owing to want of population as to atmospheric condition." As Dr. MCVAIL pointed out, "possibly *only* the atmospheres of towns or cities possess the necessary carrying powers"; but this is a question which, in the absence of a sufficient population in the rural districts to manifest adequately the influence of aerial convection, it is almost impossible to decide, and, further, it is difficult to draw a line between urban and rural conditions. For the present, at any rate, it will be safest to assume that the same potentiality obtains, but that its manifestations in rural districts are difficult of demonstration. The passage quoted by Dr. SEATON from a letter of Surgeon-General BILLINGS is worth referring to, as Surgeon-General BILLINGS, in remarking that the small-pox hospitals in his country are usually located at a distance from *any habitations* (the italics are ours), evidently recognises the difficulty of solving this question in a desert.

[1] THE LANCET, Feb. 3rd, 1894.

THE SMALL-POX HOSPITAL NEAR GUILDFORD.—After expensive litigation the Guildford, Godalming, and Woking Joint Hospital Board won a verdict in the courts a few months ago with regard to the site on Whitmoor Common, the aerial convection of small-pox being, it will be remembered, the point at issue. A gentleman living near has vigorously opposed the site, and the members of the board do not appear to know their own minds. The matter has been several times discussed since the judgment in their favour, but after much wavering the board decided the other day to defer it for three months.

Annotations.

"Ne quid nimis."

SIR JOHN RUSSELL REYNOLDS AND THE PRESIDENCY OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

WE are sorry to be authorised to state that it is Sir J. Russell Reynolds's intention not to offer himself for re-election to the Presidency of the Royal College of Physicians of London. He has made no official statement to this effect, but he has intimated his resolution to certain of his colleagues and has resisted their attempts to persuade him to alter his mind. The post of President of the Royal College of Physicians of London is not a sinecure to a conscientious occupant of the chair, and in announcing Sir J. Russell Reynolds's intention of withdrawing from the forthcoming election we desire to record how entirely we share the regret of his colleagues and our certainty that this sentiment will be endorsed by the profession at large.

DANGEROUS PARAFFIN LAMPS.

THE report of the chief officer of the Public Control Department of the County Council, which has just been published, as to the causes of petroleum lamp accidents and as to the measures necessary for preventing them is in substantial accord with the results published by THE LANCET Analytical and Sanitary Commission on Dangerous Paraffin Lamps in THE LANCET of Jan. 4th, 1896. We must admit that the report is more comprehensive, as indeed we could only expect to find, since the Council's inquiry has extended over more than a year, whereas our experiments were conducted in a much shorter space of time and were confined mainly to cheap lamps and those in common use amongst the poor. On the other hand, the County Council have investigated over 100 lamps, comprising cheap, expensive, and safety kinds, oil stoves being also included. We recognised amongst these some old friends, and it is satisfactory to find that practically the same conclusions as our own in regard to them are arrived at. First and foremost comes the conclusion identical with that of our Commissioners—that lamp accidents would gradually cease as safe lamps replaced unsafe ones. Then follows the evidence of statistics in agreement with the results of our own experiments—that three-fourths of the accidents are due to escape of, and ignition of, oil, as by upsetting or other cause. The defects of lamps are pointed out also much on the same lines as in our own report. Thus, lamps with glass, china, or other fragile reservoirs, leaking burners, defective attachments connecting the burner to the reservoir, &c., are condemned. We do not find, however, any record as to the difference in the results when the chimney remains on or becomes detached. In some lamps the chimney cannot become detached, and this has a different effect on the ignition of the escaping oil. One very interesting confirmation of our views in regard to the occurrence of explosions consists in the fact that in no less than 167 out of the 180 recorded explosions the reservoirs were of glass or china, and that in only twelve cases were they of metal. We agree with, and our experiments support the explanation suggested by, Mr. Spencer that the oil heating up more rapidly in metal reservoirs the danger point of explosion may be more quickly passed. In any case the remedy, as we pointed out, is a wick tube extending to within a quarter of an inch of the bottom of the reservoir. This point is well worth commending to the notice of those who still urge that a remedy for lamp disasters is to be found in raising the flashing point of the oil. We hold that the prohibition of the sale

of oil that is unsafe in grossly defective lamps would be impracticable, while we do not apprehend that there would be any difficulty in regulating the construction of lamps, and it is in this direction, in our opinion, that legislation should be made to tend. There are those who write upon this subject from a purely theoretical point of view and who have never ventured upon making the smallest or simplest experiment with any of the lamps concerned. For ourselves, and we are confident also for the County Council, there is only one interest at stake—viz., that of the protection of the public from the possibilities of risk in connexion with the use of petroleum lamps. Mere conjecture founded on no practical evidence whatever can only serve as a hindrance to real legislation. The lesson taught by the investigation of the County Council and our own inquiry can leave no doubt as to where the remedy in the matter of accidents due to petroleum lamps lies.

NIGHT TERRORS.

IN an interesting article in the *American Journal of the Medical Sciences* Dr. Coutts considers the various conditions described under this name. He first of all calls attention to the scant attention the subject has received at the hands of writers on either nervous diseases or children's diseases, especially in our own country, while in France and Germany and also in America the condition has excited more interest and has been the subject of more literature. Dr. Coutts further points out that in the different writings on this subject there is an extreme divergence of opinion among the writers as to the nature and importance of the complaint, but these conflicting opinions may, he thinks, be summed up under two comprehensive groups. In the first group are to be placed the opinions of those who regard the complaint as reflex, the exciting cause being partial asphyxia, the result of abdominal disturbance, naso-pharyngeal trouble, or bad ventilation. According to the opinion prevalent among the other group of observers night terrors are to be regarded as central in origin, the result of brain disturbance, which may possibly lead to the future development of other neuroses. Dr. Coutts believes that these different opinions have been arrived at by confusing two widely different conditions—a confusion for which the name "night terrors" is largely responsible. Of these two conditions the cases of the first kind are fairly frequent and of little significance, the symptoms being terrors arising during sleep, associated with some abdominal or other reflex exciting cause. In the case of the second class the symptoms are the result of cerebral disturbance, a condition of grave significance both in regard to the present and the future. For the first class Dr. Coutts suggests the name "nightmare," reserving the term "night terrors" for the second, and as a cardinal point of distinction he would insist that in the latter condition the patients "see visions" while in the former they only "dream dreams." With reference to the characteristics of night terrors Dr. Coutts says they seldom occur under the age of two or above that of eight; there is in a large percentage of the cases a history of neuroses such as epilepsy, chorea, &c., in members of the family. Infantile convulsions are a by no means infrequent precursor, the attacks come on when the child is in excellent health, and there is usually only one attack in the course of the night. In the attack itself what first calls attention to the child is, as a rule, a sudden agonising scream, and he is found, seemingly wide awake, sitting up in bed or crouching in a corner. His face is flushed and he is excitedly talking with or protesting against some imaginary person or thing which he sees. The vision is always threatening or terrifying, and the colour red plays a large part in these hallucinations. In the repeated attacks the vision is always the same, even if months elapse between them. The child does not recognise those about him, generally goes off into a sound sleep on being laid down, and has no recollection in the morning of what had occurred during the night. The resemblance of such a condition to an attack of epilepsy is sufficiently obvious, but epilepsy is not the only sequel, perhaps not the most frequent, to night terrors in children. Chorea, migraine, somnambulism, and insanity play a large part in the after-history of cases of night terrors. In regard to treatment, the bromides are of much importance, and general care and wise supervision are, of course, essential. While the condition is to be regarded as not necessarily of much detriment in itself its importance as a danger signal cannot be overrated.

STATE-AIDED v. VOLUNTARY HOSPITALS.

DR. W. KNOWSLEY SIBLEY, senior physician to out-patients at the North-West London Hospital, has dealt with this question in a recent pamphlet,[1] and concludes that the advantages are altogether on the side of the State-aided and State-controlled administration. He condemns the out-patient department of our hospitals for its pauperising influence on the community, and points out that it is far from being unobjectionable in a medical point of view. Dr. Sibley also gives a brief outline of the continental and American methods of hospital management and medical relief. Although we should be sorry to see any other than the voluntary system adopted in England we think Dr. Sibley's pamphlet is worthy of perusal.

PARROTS IN CAPTIVITY: A CHANNEL FOR INFECTION.

VISITORS to Paris cannot have failed to notice the long rows of psittaceous birds displayed for sale on the quays that border the Seine, for if by chance the variegated spectacle escaped their eyes their ears must have informed them of the neighbourhood of the loud-voiced creatures. It seems, however, that this flourishing industry is at present in danger, if not absolutely doomed to extinction, greatly to the horror and alarm of the Syndicat des Oiseliers. Professor Gilbert, physician to the Broussais Hospital and chief of the therapeutical laboratory of the Faculty, having traced several cases of infectious disease amongst his patients to parrots, felt constrained to reopen the old controversy, and so effectual has been his demonstration of this channel for contagion that the love of the Parisians for their gaily plumaged pets has undergone complete revulsion. The sale of *perruches* has consequently dwindled down to next to nothing, and to make matters worse the desire to get rid of the discredited birds has led to immense numbers being thrown upon the market, causing an unprecedented glut. So far the serious side of the question is uppermost, but some recent developments have aroused a vast amount of merriment amidst the laughter-loving populace in the French capital. Anxious to put a stop to a condition of things that was threatening their very existence the members of the parrot-dealing syndicate decided in solemn conclave that their antagonist should be formally summoned to appear before them and answer for his heretical opinions. It was essential, they said, that the Professor should attend *in propriâ personâ* in order that he might be subjected to interrogation. In their ranks there were men, born experts so to speak, who besides being practical ornithologists of the very first order were likewise accomplished bacteriologists, thoroughly versed in everything relating to contagion and immunity. To doughty champions such as these they committed their case with the utmost confidence, for were

[1] State Aided v. Voluntary Hospitals. Halifax: George B. Ryley, Southgate.

they not exhaustively equipped for the refutation of all possible assertions, for the annihilation of every conclusion that was inimical to the interests of the guild? In spite of all temptation M. Gilbert, nevertheless, refused to encounter the parrot pedlars in a dialectic tournay, being of opinion that to do so would be equivalent to a coupling of the rabbit with the carp. It was not, of course, to be expected that such a farcical proposition could be seriously entertained, but from a grotesque point of view it is regrettable that a séance so fraught with potentialities for jocundity could not take place. The situation would assuredly have yielded many valuable hints to M. Gilbert's namesake of Savoy renown. The Oiseliers are said to pin their hopes on a statement for which the late Dr. Dujardin-Beaumetz is held responsible, but they ignore the fact that the distinguished therapeutist subsequently disavowed the doctrine before the Conseil d'Hygiène de la Seine. The culpability of the parrot tribe as transmitters of infection has lately been insisted on in a thesis entitled "Psittacosis," which was sustained before the Faculty of Medicine in Paris by Dr. Morange. The author is of opinion that the birds are particularly obnoxious to tuberculosis and warns the public against the dangerous habit of feeding from mouth to beak in which so many people indulge. Without doubt the case of the parrot dealers is a hard one, but the action of their syndicate exposes them to ridicule, and everybody knows that in Paris ridicule is always fatal.

THE MODE OF ACTION AND CHEMISTRY OF COD-LIVER OIL.

IN the *Journal of the American Medical Association* of Feb. 1st Dr. F. E. Stewart publishes the results obtained by himself and others in an investigation into the chemistry and modes of manufacture of cod-liver oil. The mode of action and chemistry of the oil has long been a subject of controversy, some authorities maintaining that it is merely a nutritive agent having the advantage over other fats of a readier entrance into the system and a more ready assimilation, whilst others are of opinion that on account of some peculiar principle or principles which it contains cod-liver oil exercises a stimulating and alterative influence on the processes of assimilation and nutrition, thereby aiding in the production of healthy tissue. It has been debated also whether the pale oil or the darker variety has the better therapeutic properties. The difference in colour depends upon the method of manufacture. The pale oil is prepared from the fresh livers, whilst the brown varieties are prepared by exposing the livers to the heat of the sun, which expands and bursts the oil cells. The first oil that floats to the top of the cask is quite pale and is known as raw medicinal oil. The second skimming is rather yellow and with a strong taste and smell, and is the light yellow oil employed for industrial purposes. The third or last skimming is a dark brown oil with a very strong smell and disagreeable taste, and is used exclusively for tanning purposes. It is generally supposed that the brown colour of the darker varieties of oil is due to the products of putrefaction. Dr. Stewart and his colleagues, however, made a series of experiments in which they appear to have proved that this was not the case. The cause of the darkening could not be determined, but may be due to the same process that darkens the surface of freshly cut meat or gives to dried beef its rich brown colour. Gautier and Mourgnes demonstrated the presence of leucomaines in cod-liver oil, which are powerful stimulants of the functions of nutrition and assimilation, promoting metabolic changes Dr. Stewart had no difficulty in determining the presence of these leucomaines in the large number of samples of oils which he examined. The pale straw-coloured oil contained but a small amount; the light brown oil contained a larger proportion. The writer of the paper from which this abstract is taken maintains, therefore, that the information contained in our text-books in regard to cod-liver oil is to a certain extent erroneous and should be revised, especially in regard to the view that all the substances found in cod-liver oil are due to the products of putrefaction. He also lays special stress on the fact that certain extractive matters obtained from the oil and meat extracts are stimulants to the digestive organs and not nutrients, and that this consideration had caused some medical men to abandon the use of these preparations; but Forster and other physiologists have shown that they (the leucomaines) are necessary ingredients of the diet, their office being to assist in the assimilation of proteids.

THE DENTAL REGISTER.

THE names of members of the dental profession are to be found recorded in the Dental Register for 1896. It shows an increase of 34 on the numbers of 1895—moderate in comparison with that on the numbers on the Medical Register. The dentists of the United Kingdom are registered and practise still, for the most part, on the strength of having been in practice before the passing of the Dentists' Act. No less than 3452 of the 4908 on the Register are without any additional qualification; the rest have, for the most part, qualifications from one or other of the several bodies who lay themselves out for such work. The Royal College of Surgeons of England takes the lead with 712 Licentiates, an increase of 49 on the previous year. The Royal College of Surgeons of Edinburgh has 144, the Faculty of Physicians and Surgeons of Glasgow 122, and the Royal College of Surgeons in Ireland 447 Licentiates on the Register. Foreign dentists number only 27, as last year—11 Doctors of Dental Medicine of the University of Harvard and 16 Doctors of Dental Surgery of the University of Michigan.

THE PORTSMOUTH LUNATIC ASYLUM.

THE Portsmouth town council has adopted the report of its Lunatic Asylum Committee in favour of the strange proposal of appointing, without advertisement of the vacancy, the medical officer of health of the borough to the superintendentship of the asylum. There is yet one final word of concurrence, we believe, wanting—that of the Commissioners in Lunacy. It will be very interesting to see how the action of the town council strikes them and how far they will accept a joint responsibility. We have no more to say than we have already said—and said with reluctance and from a sense of public duty to the most pitiable of all sorts of afflicted people—further than to notice the arguments by which this unprecedented procedure was supported. They were worthy of the proceeding itself. The chairman, Sir William King, moved the adoption of the report. He asked, "Where was the man that would dare to rise in his place and say that Dr. Mumby had failed in his duty?" Of course there was no such man, the fact being that Dr. Mumby had been such a good health officer that it was wrong to remove him from his true post. But the speaker's great point was that all that was wanted in the superintendent of an asylum was good organising ability and skill to deal with the diseases that affect lunatics in common with sane people! This ignoring of the affliction of lunacy is indeed hard on the sufferers. Sir William King cannot, however, be very comfortable in his success, for he disclosed the fact that eighteen months ago he advised Dr. Mumby not to become a candidate. Why did he do so? The opponents of the appointment were only four, and they only pressed for the advertisement of the appointment. They included two medical men—Mr. Emmett and Mr. Hann—who were, of course, but with perfect unreasonableness, accused of jealousy. They are to

be congratulated on vindicating the principle of justice to the insane and the universal sense of the medical profession. One member of the profession, Mr. Mulvany, supported the appointment of the medical officer of health. "He might be a little rusty, but that would wear off in a couple of months." We commend this estimate of the charge of 600 lunatics to the Lunacy Commissioners, with whom the responsibility rests to see that medical superintendents of asylums are not to be appointed without advertisement of the vacancies and without insistence on the necessity of the candidates having had previous experience in the treatment of lunatics.

THE PUBLIC AND POISONS.

DESPITE all the supervision which is at the present time exercised over the sale of poisons, it is still impossible to prevent some of the most dangerous substances falling into the hands of the general public from time to time. An instance of this came before the Chester Police-court a few days ago in which some seedsmen were prosecuted for selling a tin of powder for killing weeds which was said to consist of 80 per cent. of arsenic mechanically mixed with caustic soda—a truly formidable mixture. Considering how commonly poisons are used in trades and for various household uses it is perhaps a wonder that more accidents do not occur; but, notwithstanding, it is only right that the greatest care should be exercised in the sale of all such substances to prevent them falling into the hands of people who are either careless or ignorant of their dangerous properties.

THE DANGERS OF CYLINDERS CONTAINING COMPRESSED GAS.

ALMOST exactly a year ago we ventured to express the opinion that legislative attention would have to be turned to many chemical preparations now outside the pale of legislative control, with the view of protecting the public from the possibilities of danger which handling and conveyance to and fro of these articles involve. The manufacture of compressed gases, liquid gases, &c., has increased so largely of late years as now to have become an important industry. With the increase of the demand and the output certain risks both in the manufacture and in the transport of these commodities have come to light, and the serious disaster at Fenchurch-street Station this time last year, in which a gas cylinder exploded with far-reaching effects, at once led to the prompt action of the Home Office in appointing a committee of inquiry to investigate the subject and to draw up a report as to the causes of the explosion of gas cylinders and as to the precautions that should be observed in regard to the manufacture of gases, the testing of the storage cylinders, and the manner of filling them. The members of the committee were Professor Unwin, F.R.S., Professor Boys, F.R.S., Professor H. B. Dixon, F.R.S., Dr. Dupré, F.R.S., and the Rev. F. J. Smith, F.R.S., and their report was published last week. We observe with some satisfaction that their conclusions fully endorse our remarks that some need of legislative control was made evident from the great increase in the use of compressed gases and similar articles as ordinary articles of commerce, and that with this increase a new danger was springing up. "It will be seen," says the committee, "that the manufacture of compressed and liquefied gases is carried on on a large scale and by many different manufacturers in different places, and so far as can be judged the manufacture is likely to increase still more, and the compressed gases are tending to become indispensable auxiliaries in various important industries." They find that the risks of explosion of cylinders of compressed gases are due (1) to negligence in the manufacture, annealing and testing of the cylinders; and (2) to neglect of precautions in filling the cylinders. "Looking to the magnitude of the trade, the risk to the public and to users of the gases, and the partial and imperfect regulation attempted by the action of the railway companies," the Committee think "that some control of the trade by official inspection is required." They suggest that this inspection should be under the direction of the Factory Department of the Home Office or a Department of the Board of Trade, and that it should be directed to all matters referred to in the report as important in securing safety. The description and manner of testing to which cylinders should be submitted are detailed with care and at some length, many of the conclusions being based on experimental evidence conducted at Woolwich Arsenal and elsewhere. We are glad to find so full and authoritative a confirmation of the views we expressed in THE LANCET of March 23rd, 1895, and we trust that the recommendations laid down in this excellent report will soon be incorporated into a short Act.

CHANGES IN THE SPINAL CORD IN CERTAIN CASES OF PROFOUND ANÆMIA.

IN the recently issued seventy-eighth volume of the Transactions of the Royal Medical and Chirurgical Society is an exhaustive and well illustrated account by Dr. James Taylor of this pathological combination which has attracted so much attention during the last few years. In addition to a very clear *résumé* of previously recorded cases Dr. Taylor gives a detailed account of two cases which he had himself observed during life and which he subsequently had the opportunity of examining minutely after death. In almost all cases there has been extensive sclerosis, most marked in the posterior columns, with considerable symmetrical degenerations in the lateral and anterior columns. Dr. Taylor thinks that there are two factors in the production of these changes in the cord: (1) a toxic condition of the blood, and (2) hæmorrhages with some slight focal inflammation; and this view seems to be well founded. In future cases it would be worth while to have observations made experimentally as to the toxicity of the blood on lower animals during the life of the patient.

OVER-PRESSURE AND ITS RESULTS.

THE Shattuck Lecture this year was given at Boston by Dr. Robert Edes, and he discusses in a pleasant and commonsense way the chronic invalids commonly known as "neurasthenics," who form an ever-increasing class of patient in civilised countries. Life is rendered burdensome to themselves and not infrequently to their friends; they exhaust the patience of their medical attendant, for one complaint only disappears to give place to others as distressing; and not infrequently, when recovery occurs, it is attributed, not to medical assistance, but to some modern form of "miracle-working." As to the causation, Dr. Edes attributes it to the modern spirit of the times and not to the local conditions in any one country. Although America is often spoken of as the place where neurotic troubles are most rampant he shows by a quotation from Lowenfeld that the same troubles are frequent "in the quiet city of Munich, supposed to be devoted to classical art and to beer, where there can be no restless political ambition, no worship of the almighty dollar, and no complicated American drinks." Dr. Edes evidently believes strongly in the unwisdom of forcibly suppressing emotion. "Would it not be better," he says, "if our customs and 'good form' permitted a patient to scream as she so often says she wants to, instead of restraining her feelings for propriety's sake and developing a neuralgia or paralysis or an attack of 'nervous prostration'?" Every golf player knows the relief afforded by the golf equivalent of a scream, and Dr. Edes might find the

links a suitable place for his screaming patients, but in more confined quarters probably the treatment would make more patients than would be cured by it. He analyses the results of removal of the ovaries in twenty-seven women for the relief of nervous symptoms, and the results confirm the strong feeling in this country against the practice. Few were permanently relieved, and in several rapid mental deterioration took place. The lecturer has some wise remarks on the causes of nervous breakdown: "the influence which converts healthy fatigue into a pathological condition is the stress and worry under which work is done" irrespectively of the amount of intellectual labour. This subject is receiving now the fullest attention both in this country and in America, and there are most hopeful signs that in educational and other fields the conditions under which work is done are being improved and that the neurotic and hysterical victims of over-pressure will become fewer and fewer each year.

THE MEDICAL SOCIETY OF LONDON.

THE Medical Society of London celebrated on Saturday last its 123rd anniversary by a dinner in the Whitehall-rooms of the Hôtel Métropole. The President, Sir James Crichton Browne, occupied the chair, and there was a large attendance of Fellows and of distinguished visitors. Amongst the latter were Sir Alexander Mackenzie, the President of the Royal Academy of Music; Mr. Christopher Heath, President of the Royal College of Surgeons; Dr. Dickinson, President of the Royal Medical and Chirurgical Society; Dr. Buzzard, President of the Clinical Society; Professor Dewar, Sir W. Broadbent, Sir W. MacCormac, Sir Dyce Duckworth, and Sir W. Roberts. Sir Joseph Lister, as President of the Royal Society, was to have responded to the toast of "The Sister Societies." He was unfortunately absent through indisposition, and Sir James Crichton Browne in stating this fact took occasion to express the hope of the profession that Sir Joseph Lister would shortly, like his predecessor Lord Kelvin, be raised to the Peerage. Mr. Heath, in proposing the toast of the evening, gave a short historical sketch of the society since its foundation, and remarked on the great value of the meetings for the exhibition and discussion of clinical cases. He recalled that it was just a century since Edward Jenner was a Fellow, and added that Sir Alfred Garrod was the oldest living past President and Sir B. W. Richardson the oldest living Orator. The toast was responded to by the President, who remarked that the two greatest professions were those of the physician and the electrical engineer, who between them would illuminate and recuperate the world. Mr. Mitchell Banks, in responding for the extra-metropolitan Fellows, said that in the history of his vocation since he had been an active practitioner he had noted two great movements: one was the rise and spread of the British Medical Association, this spread being due to a united desire to advance the interests of the profession, and the other was the formation of centres of medical education in the provincial towns of England. This latter had introduced into these towns a new life of literature, science, and art which tended to broaden the souls of those who dwelt in them. The President then presented Mr. Victor Horsley with the Fothergillian Medal and Premium, in accepting which Mr. Horsley made due acknowledgment of the work done by Schiff, Ord, and Murray in the discovery of the function of the thyroid gland and the treatment of myxœdema. The toast of "The Visitors" was responded to by Sir James Dick, Director-General Royal Navy, and by Sir Alexander Mackenzie, the speech of the latter being the brightest and wittiest of the evening. Songs were contributed by Dr. Frederick Roberts and others, and thus the annual dinner passed off most successfully. The sister societies should certainly make some attempt to return the hospitality of their festive elder relative.

BACKWARD CHILDREN.

IT is becoming more clearly recognised that children are not all cast in one mould and that there is a large class to whom intellectual exercises are more difficult than to others and whom it is absurd to force through the same educational curriculum as the average child. But the difficulty confronting teachers in which they look for assistance from the medical profession is this: How are these children to be recognised and how is disability to be distinguished from disinclination or laziness? Before these questions can be answered observations will have to be made on a very large number of children, both normal and backward. A paper giving the result of observations made on 100,000 children was read on the 18th ult. before the Royal Statistical Society by Dr. Francis Warner. The records of cases had been analysed and grouped, the records being made on specially designed cards indicating the points to which the attention of the observer should be directed. The labour involved in the resulting tables must have been enormous, and they will form an invaluable basis for future work on the subject. But it deals with groups and merely indicates the needs of individual children. As Dr. Warner says, "further observations and research are still much needed to afford material for the study of the individual defects and the results of variation in environment both in London and elsewhere." A most useful society, the British Association for Child Study, has been in existence for a few months, formed chiefly of teachers and parents for the express purpose of making continuous observations and records of individual children. The society has the active assistance of several well-known physicians in drawing up schemes for recording observations, and the results after a few years' accurate observation will be collated, tabulated, and published by the society. Information on the subject can be obtained from the honorary secretary, 59, St. John's-park, Upper Holloway, N.

IRISH POLITICS AND MEDICAL APPOINTMENTS.

THE conditions of public life require that Parliamentary and municipal representation should generally be decided on political grounds, and the hand of the electioneering agent or wire-puller is on such occasions everywhere at work, though perhaps not always seen. Humorous writers have found abundant material in these contests, moralists have denounced their inevitable abuses and the questionable compromises arrayed in the condition *Do ut des*, disappointed extremists have mourned over the discovery that success at the poll is apt to be followed by forgetfulness of platform promises, but in the main the opposing parties know something of each other's methods, and the rules of their game hardly vary from year to year. Such tactics, however, are not of universal application, and we are bound to utter an emphatic protest against the introduction of party politics into the selection of medical officers for public appointments. This, unfortunately, seems to have been permitted in Enniskillen, a town of about 6000 inhabitants whose board of guardians consists of ninety members, twenty-six of them being "Nationalists." Not long ago the post of medical officer to the Enniskillen Workhouse became vacant, and three applicants came forward, two of whom were Protestants and Unionists, the remaining one being a Roman Catholic and Nationalist. In connexion with the prosaic business of selecting one of these three gentlemen a strange and humiliating incident occurred. On Jan. 21st the twenty-six Nationalist guardians held a meeting, and it was unanimously resolved "That

inasmuch as we, the Nationalists, could not return our Catholic and Nationalist candidate for the medical officership of the Enniskillen workhouse, we withdrew Dr. —— and supported Dr. ——, the farmers' candidate, against Dr. ——, the candidate of the landlords, gentry, and their agents and hangers-on, on an understanding and an arrangement with Dr. —— that he would support and use his influence with the dispensary committee in recommending to them Dr. ——, and to have him returned as medical officer for the Barrowstown Dispensary district." This remarkable manifesto carries its own condemnation with it, and will not have the effect of casting oil upon troubled waters.

FERGUSSON'S PUPILS.

IT is a little remarkable that at the present moment at five of the large general hospitals in London pupils of the late Sir William Fergusson are the senior surgeons. They are William Rose at King's College Hospital, Christopher Heath at University College Hospital, George Lawson at Middlesex Hospital, Charles Macnamara at Westminster Hospital, and Boyce Barrow at the Royal Free Hospital.

TRANSMISSION OF LIGHT THROUGH ANIMAL BODIES.

IT appears that the idea of transmitting light through animal bodies is neither one of to-day nor one of foreign development, for in 1868 our own countryman, Dr. (now Sir) Benjamin W. Richardson, read a paper on the subject at a meeting of the British Association for the Advancement of Science at Norwich. Sir Benjamin W. Richardson did not proceed quite in the same way as that which is adopted now, but he endeavoured to look directly through the body, in parts. His idea was that the body might be considered as translucent, and that different organs could be observed by the direct transmission of light round them or through them. He made researches with various kinds of light—the electric, the limelight, the ordinary light, gaslight, oxyhydrogen, magnesium, and other lights, and obtained the best results, as he thought, with the magnesium light. At Norwich in 1868 he fitted up a magnesium light with the necessary shafts and slots, and rendered visible various parts, sending the rays also through the bodies of fish and other animal organisms. A hand exhibited in the light showed a good transmission of light, and in a child the bones, under a somewhat subdued light, could be seen in the hand and wrist. A fracture in the bone could, in fact, be easily made out, or growth from bone. In a thin young subject the movement and outline of the heart could be seen in the chest, but the light he then used was not sufficiently powerful to render the demonstration all that he could desire. He held that it would be possible to see through some diseased structures so as to ascertain whether within a cavity there was fluid or a solid body, and he concluded by stating that his object had been rather to mark the origin of a new progressive step than to explain a perfect instrument or record an extended series of successful results. In the course of his address he also said that the method promised fruits of the greatest interest and value. It might be used for a variety of physiological purposes, and in animals whose tissues were thin the condition of the circulation and respiration could be carefully studied under the action of various agents. A little later Sir Benjamin W. Richardson showed the practical use of transmitted lights. In one case he detected by it in the fingers of a woman a little plexus of blood-vessels from which drops of blood had exuded. He marked the spot, and afterwards, by dividing the plexus, cauterising, and applying pressure, he completely relieved the patient of her trouble. It has been observed as a singular fact that observations such as these recorded in 1868 were allowed to drop out of sight for so long a period; but the fact is we were not then so ready for the development as we are at this time, and photography had not advanced, as it has now, so as to come to our assistance.

THE LONDON SOCIETY OF COMPOSITORS AND MEDICAL CHARITIES.

WE have received the report of the London Society of Compositors for the year 1895. The society commenced to subscribe to medical charities in 1858 with a donation of 14 guineas, and has continued to do so ever since, the amount subscribed increasing with every year until in 1895 it reached £255 3*s*., the membership being 10,280 in round numbers a subscription of 6*d*. per head. We have no information as to the other trade societies, but we doubt whether they do as well as the compositors. The amount voted for the current year is £262 10*s*. The total amount subscribed in the seventeen years 1879—at which date the subscriptions to medical charities were entered distinct from trade charities—to 1896 is £3350 2*s*., an average of nearly £200 a year. If all the trade societies would show an equal amount of organised benevolence financing of hospitals would not, we fancy, be such hard work as is at present the case.

PURE BEER.

BEER has been the subject of legislation from a very early time, and, contrary to what many believe, was adulterated in the old days as much as it is now, though in quite a different way. "And you, maister brewer, that groweth to be worth £40,000 by selling of soden water, what subtility have you in making your beer to spare the malt, and put in the more of the hop to make your drink, be barley ever so cheap, not a whit the stronger, and yet never sell a whit the more measure for money. You can, when you have taken all the harte of the malt away, then clap on store of water ('tis cheap enough) and mash out a turning of small beer like rennish wine; in your conscience how many barrels draw you out of a quart of malt?" So was it written in a curious tract published in 1592. According to those who are supporting by petition Mr. Cuthbert Quilter's endeavours to introduce a Pure Beer Bill on the 25th inst. the question, How many barrels draw you out of a quarter of malt? would still be an awkward one for some "maister brewers" to answer. Not, however, because malt is used sparingly, but not at all. Sweet wort may consist of the sugars obtained from certain starches by the hydrolising action of weak boiling acid. The weak saccharine solution may then be fermented and subsequently bittered with anything but hops. The resulting product, therefore, is not a malt liquor or such a wholesome bitter as if it contained hops. In short, it is not beer; no liquor should be described as such that is not brewed exclusively from barley malt and hops. We trust that the petitioners who are now humbly praying that such a definition may shortly become law will have their petition granted.

THE PREVENTION OF CRUELTY TO CHILDREN: ITS WAYS AND MEANS

IT is a strange fact that public charities which are ever in search of revenue do sometimes, in a sense, become embarrassed by their own funds. We may mention one recent instance among others. The National Society for the Prevention of Cruelty to Children, thanks to the exertions of its supporters, has during the past year been enriched by the proceeds of a series of bazaars. Notwithstanding the

encouraging result, however, there is some ground for disappointment in a diminution of the ordinary annual income. The shadow of the bazaar scheme has partially eclipsed the private subscription list. The embarrassment thus occasioned will, we trust, be merely temporary, and we feel sure that the financial position of the society has only to be known in order to stimulate the liberality of its many well-wishers. As regards its work little explanation is called for. Its influence as a reforming agency has been felt—not only by the suffering child, but by the cruelly-erring parent also. Its main purpose has always been rather to protect than to punish, to educate in self-restraint rather than to avenge offences. The conduct of its officers has rarely, if ever, been impugned by other than prejudiced persons, while on the other hand it has often elicited the warmest commendation. It is difficult indeed to see how, without their exertions the Act, which is virtually a Magna Charta of childhood, could be reduced to practice. The large extent of the field covered by its operations moreover affords a means of generalisation as to the neglect, injury, and disease in their relation to infant mortality, which must ultimately go far towards the diminution of these prevalent evils. For such and similar reasons we trust that the appeal recently issued by the society to its collectors in every district will result in such a return as will more than make good the deficit in contributions for the current year.

THE annual general meeting of governors, donors, and subscribers of University College Hospital will be held in the board-room of the hospital on Friday, March 20th, at four o'clock. The business of the meeting will include the election by ballot of fourteen members of the hospital committee and the consideration of a statement of accounts for the past year, together with a report on the condition of the hospital.

H.R.H. THE PRINCE OF WALES has signified to Lord Aldenham that he will have much pleasure in presiding at the dinner which is to be held in May next in aid of the re-endowment of Guy's Hospital.

THE annual festival dinner of the Irish Medical Schools' and Graduates' Association will take place at 7 P.M. on St. Patrick's Day, March 17th, at the Café Monico, when the President, Sir Richard Quain, Bart., F.R.S., will preside.

THE spring meeting of the South-Western Division of the Medico-Psychological Association is to be held at Bailbrook House, Bath, instead of at Barnwood House, Gloucester (as previously announced), on Tuesday, April 14th.

H.R.H. THE PRINCE OF WALES has appointed Sir William MacCormac medical officer in chief of the St. John Ambulance Brigade.

PRESENTATIONS TO MEDICAL MEN.—Dr. Herbert Watthews, of Holmfirth, Huddersfield, has been the recipient from the Holmfirth Ambulance Corps of a silver-mounted riding whip.—Dr. Thomas Carr, of Bocking, Essex, has been presented by some of the ladies attending his Rayne Ambulance Class with a brass reading stand, "as a slight recognition of his interesting lectures on first aid."—On Feb. 24th the friends of Dr. Samuel Tate at Moy, county Tyrone, where he had resided for several years, met at his residence at Richhill, he having been lately appointed medical officer of Richhill district, and presented him as a token of their regard with an illuminated address and a microscope.—The friends of Dr. Cautley Dawson of Rawdon, near Leeds (who is about to give up his practice there), have united to make him a parting present in testimony of their esteem. The testimonial consists of a timepiece in a chased brass case and a cabinet and book-case combined (with artistic draperies.)

THOMAS WAKLEY,

THE FOUNDER OF "THE LANCET."

A BIOGRAPHY.[1]

CHAPTER XI.

THE LANCET becomes a Rigorously Medical Paper.—Wakley as a Chess-player.—The Hospital Reports, or "Mirror of Hospital Practice."—Reproof to Students.—The Preface to the Second Volume of THE LANCET.*—Some Criticism of Hospital Procedure.—Attack on Nepotism.—Expulsion of Wakley from the Borough Hospitals.*

AT the date at which this history has now arrived—viz., the date of the dissolution of the injunction prohibiting the issue by Wakley of Abernethy's Lectures in THE LANCET, Wakley's paper was a recognised publication of more than two years' standing, with a regular circulation of upwards of 4000 and a well-defined policy and range. Wakley kept his promises of the original preface during the first two years[2] well, but as the paper grew in authority and increased in circulation two alterations in its contents became noticeable. The first was that all attempts to interest the reader in matters outside the science, practice, and politics of medicine and the allied sciences were given up. The second was that the position of Wakley and the hospital officials towards each other had crystallised into unmistakable hostility.

The disappearance from the paper of the weekly columns entitled respectively "The Chess-table," "The Dramatic Lancet," and "Table Talk," meant more to the Editor than the importance of the articles would seem to us now to warrant. It was a sacrifice of three of his own hobbies to the pressure of what he conceived to be his wholly absorbing duty. All writers who use their pens to promote certain definite serious results, political, social, financial, or what not, know how pleasant it is to have an opportunity of lightening the important labours of the day by a little desultory writing upon some topic in which they take a less absorbing or a more light-hearted interest. Wakley was a great chess-player, an enthusiastic playgoer, and, as later the House of Commons and the Reform Club were not slow to discover, an admirable dinner-giver and diner-out. His chess he had learned when quite a boy. It formed his chief recreation during his period of hard study in Gerard's Hall, and throughout his life he was an ardent student of the most absorbing and scientific of domestic games. He was one of the very few players who contested successfully with the celebrated automaton player; and it was his habit, when engaged in editing his paper, to have a chess-board by his side, upon which, during the intervals of dictating and proof-reading, he would set himself problems. It is a curious fact that THE LANCET, which became after its first few numbers so rigidly a medical paper, should have been the actual journal to inaugurate the practice of publishing chess-problems and accounts of games of chess; but Wakley, as will be seen from his own words, believed that the study of chess would form a recreation peculiarly fitted to the mind of the properly trained medical man, and so might almost form a factor in the ideal medical education.

"In a former number," he writes on Nov., 1823, "we gave some account of the origin of the game of chess. This is perhaps the only game to which the medical student may profitably devote any portion of his time and attention. It is liable to none of the objections which apply to games of chance, it holds out no encouragement to cupidity, and while it affords an agreeable relaxation from more serious pursuits it strengthens the intellectual faculties by the unremitting

[1] Chapters I., II., III., IV., V., VI., VII., VIII., IX. and X. were published in THE LANCET, Jan. 4th, 11th, 18th, and 25th, Feb. 1st, 8th, 15th, 22nd, and 29th, and March 7th respectively.

[2] See chapter viii. of Biography, THE LANCET, Feb. 22nd, 1896.

attention which it demands, and may even have some influence on our moral habits by the lessons of foresight, patience, and perseverance which it inculcates. To avoid errors on the one hand by foresight and circumspection, and to endeavour to retrieve such as are committed on the other by patient industry and perseverance,—these are matters applicable to all professions and situations in life, and which, as the American philosopher, Dr. Franklin, has observed, are constantly illustrated on the chess-board. The study of chess has, we believe, been recommended to medical students by the distinguished Professor whose lectures stand at the head of this publication (Sir Astley Cooper), and who unites to his great professional and general knowledge a very considerable degree of excellence in that scientific game. The recommendation was founded, not only on the superiority of this amusement to all others in an intellectual point of view, but upon a more benevolent motive: for circumstances might possibly occur in which the surgeon's acquaintance with chess might relieve the mind as much as his professional skill could mitigate the bodily sufferings of his patient."

From this it will be understood that Wakley did not allow his chess articles to be crowded out without a pang nor without some little doubt that he was sacrificing to utilitarianism a subject that had its utilitarian side.

The "Dramatic Lancet" came to an end even sooner than the contributions to the literature of chess, and it also was not allowed to disappear without regret. Wakley had an extreme love of the stage. He was well read in dramatic literature and a constant attendant at the play, a fact upon which his future oratorial successes were largely dependent. Many of his similes and illustrations and many of the nicknames distributed freely by the writers in the early numbers of his paper had their origin in the Editor's histrionic proclivities. In omitting the notice of the drama, moreover, Wakley was not only narrowing his range by excluding the discussion of a subject very palatable to his own taste, but he was taking work away from some of his press friends who, when THE LANCET was a small paper, and not quite limited either in programme or performance to things medical, gave him their assistance.

The first alteration that Wakley made in his paper—the limiting its columns to strictly medical matter—which, by the way, dated definitely from December, 1825, was not an important one. It had relation to certain idiosyncrasies of his own, and so notice of it finds due place in a biography; but, as a matter of fact, the lay matter in THE LANCET was so small in quantity and unimportant in quality compared with the medical that its formal exclusion made no difference to the position or value of THE LANCET. But the second alteration, the alteration in tone towards the hospital officials, was a very important departure and one that must be explained at some length. If Wakley had not quarrelled with the hospital surgeons as a class many regrettable passages—regretted more by himself than by anyone else—would never have been written. On the other hand, his intuition and foresight told him, and his innate pugnacity supported him in the view, that unless he declared absolute and unrelenting war upon those who were attempting to restrict his operations for reform he would fail utterly and hopelessly. And he was right. All the good that Wakley did was due to the fact that when he came to the little stream separating the province of medical journalism, as then understood, from the kingdom of the monopolist, he boldly crossed it and declared war, recognising that fighting was his only alternative to utter ineffectiveness.

The war began in the department of the paper that is now known as "A Mirror of Hospital Practice." The reports of proceedings in hospital practice were first started regularly in THE LANCET of Nov. 9th, 1823—that is, in the sixth number that was issued. From this period they have been continued for seventy-two-years without intermission—for the first twenty-six years under the original title of "Hospital Reports," and since then under the title of "A Mirror of Hospital Practice." All the reports in the first volume were couched in a fairly complimentary vein. Guy's Hospital and St. Thomas's Hospital came in for the most lengthy notice, the reason of this being simply that the operative surgery of Sir Astley Cooper overshadowed that of every other surgeon in the kingdom, and the most trivial procedure in surgery under his hands became a matter of interest of which all were bound to read. Proceedings at St. Bartholomew's Hospital, where Abernethy was the great but infrequent operator, had allotted to them also considerable space, while the cases of Charles Bell at Middlesex and Benjamin Brodie at St. George's Hospitals were usually detailed at some length. Throughout the first volume the reports were, on the whole, eulogistic. Every now and then the lack of some little convenience in ward or operating theatre was made the subject of uncomplimentary comment, but no word derogatory to the operator ever appeared. Not that there was any slurring over of the real issue of the cases out of deference to the feelings of the surgeon, for as early as Nov 16th we have the fatal sequel of a case narrated in uncompromising terms. A man had died after being operated upon for stone by Sir Astley Cooper, and the death was attributed to hæmorrhage from the artery of the bulb in a perfectly matter-of-fact way, showing that the reporter was more concerned in giving a truthful record of hospital surgery than of being pleasing to eminent persons. A caustic remark on an operation undertaken for stone where the patient "was carried back to the ward without receiving much assistance from chirurgical skill, as no stone was extracted," was the only really unfriendly comment on hospital surgery that Wakley allowed himself during the first volume. On the other hand, the journal which professedly catered largely for the medical students did not scruple to speak severely to them of their behaviour at lectures and urged upon them the necessity of paying due attention and respect to their teachers. The following passage appeared in a letter in the first volume of THE LANCET reflecting upon the conduct of the surgical classes at the United Hospitals previously to Sir Astley Cooper's entrance to deliver his addresses[3]:—

"What an interesting spectacle, Mr. Editor, to see a body of young men assembled for the purpose of acquiring professional knowledge actively engaged in discharging masticated paper and apple into each other's faces or engaged in the no less intellectual occupation of twirling round the lecturer's table or sprinkling dirt on the heads of those who happen to sit under them! I have been educated at Edinburgh and have attended the medical schools of our continental neighbours, and I can assure you that the students of St. Thomas's are not only far greater proficients in these accomplishments than their graver brethren of the north, but that if a student from the École de Médecine were introduced into the theatre in the Borough he would be compelled to acknowledge the inferior vivacity of a class of French students. Such an admission would, no doubt, be very humiliating, but the students in the Borough were entitled to it. *Palmam qui meruerunt ferant.*"

The editorial comment upon this was to print in the next number the following:—

"We have received several letters from students belonging to the class of Mr. Charles Bell, complaining of the noisy and childish behaviour of some of the pupils during lecture; so great has been the annoyance that Mr. Bell twice in the last week was obliged to address the gentlemen on the subject. If this interruption should be repeated Mr. Bell, in justice to the intelligent hearers, is called upon to take the most decisive measures to abate what has now become an intolerable nuisance. The student who can be inattentive to a lecture delivered by Mr. Charles Bell can have but little

[3] This is the "so genteel a surgical class," all of whom "appeared gentlemen of cultivated manners and good education" to THE LANCET reporter when he saw them in Sir Astley's presence.—THE LANCET Feb. 22nd, 1896.

regard for either his professional character or intellectual improvement."

These passages sufficiently show that THE LANCET was no friend to rowdiness. The man who hated that element of student life when a student looked with no more favourable eye upon it now, and all his counsels to his student readers were good and sober. This must be put on record because one of the wild accusations against him which found a place in the contemporary press was that he stirred up the students against their masters—his foes, the hospital surgeons. His conduct was absolutely the reverse, and until the hospital surgeons saw in the faithfulness of the reporting and the freedom of the speaking in THE LANCET a menace to their interests the accusation was not brought forward.

But the preface to the second volume of THE LANCET stirred apprehensions in the hospitals. Hitherto a little wondering among a few whether they would be subjected to what they termed the "piracy" of their lectures—a process to which Sir Astley Cooper had amiably submitted—had been the measure of their objection to Wakley, but the following words had an import serious to the surgical staffs of all the hospitals:—

"The next distinguishing feature of THE LANCET is the publication of Hospital Reports. It has long been a matter of astonishment that from the different hospitals in this great metropolis no reports of cases have been sent forth to the world. This deficiency we shall endeavour to supply, and our reports will have this advantage over any that might be published by the surgeons of the different institutions—that while they would have an interest in concealing many circumstances which might reflect discredit on themselves and the institutions to which they belong, we cannot be influenced by any such considerations, and as the only argument that can be adduced against our reports is that they are not sufficiently authenticated we have only to observe that, by giving the cases as they occur in the hospitals, a sufficient number of checks is afforded by which our claims to the confidence of the profession may at all times be readily investigated."

Here we have the first loud sounding of the reformer's cry. This is the first time that Wakley said of the hospital surgeons—his brother practitioners—that *they* might conceal things awkward to themselves or their hospitals, in which case it would be *his* duty to reveal them. His words may be taken as the beginning of war. In that case it must be conceded that Wakley struck the first blow; but it was such a tap compared to the one that was, as will be seen, almost immediately struck back at him, and gained what force it had entirely from the weakness of the foe, that he must be excused for believing that he was the offended party. For such was always his view. But no increased asperity was employed in the reporting of hospital cases. The records were strictly fair and accurate. Reference was made to erysipelas occurring at St. George's Hospital after operations. Mr. Key's surgical skill at St. Thomas's comes in for approbation, and only certain hospital abuses are found fault with, the blame being secondarily apportioned to the medical staff, who are credited with ignorance of the matters detailed. Here is an example:—

We understand that persons were allowed to vend porter in the wards of St. Thomas's Hospital, and to hawk oranges, tarts, &c. through those of Guy's. We cannot suppose that the medical officers of these institutions are aware of these facts, and on that account we refrain for the present from making any remarks on them. The abuse is too glaring to be allowed to exist by anyone concerned in the treatment of the sick and who has it in his power to effect its redress.

This little paragraph, revealing as pages of writing could not do the exceeding lack of proper administration in the wards of the metropolitan hospitals seventy years ago, is the only passage that could have given offence to the most susceptible sensibility or the most uneasy official conscience. A case of lithotomy was mentioned in which Messrs. Travers, Green, Morgan, and Tyrrell diagnosed a non-existent stone, but the fact was mentioned as one of surgical interest, and no unfavourable comments were made. At length, however, a point arose upon which THE LANCET required more light. A case of compound fracture of both bones of the leg was admitted to the wards of St. Thomas's Hospital. The patient remained eight days with only alleviating treatment, but finally when the parts were threatened with gangrene Mr. Travers consented to operate. The femur was amputated about three inches above the knee, and the operation was performed with very little loss of blood. Nevertheless the patient, who was in a parlous plight when surgical interference was at last resorted to, died three days afterwards. The reporter of the case to THE LANCET put certain questions to Mr. Travers concerning the cause of the delay in operating. This may be taken as the first assertion on the part of Wakley of a right to criticise events occurring in the hospitals as good as his right to narrate them. He received no answer, but he did not make any reflection on this as an omission on Mr. Travers's part. On the contrary; in the next week's issue the reporter gave at some length an account of a case where Mr. Travers was pressed to operate upon a patient for stone, but declined to do so, as his colleagues, Mr. Key and Sir Astley Cooper, could not detect the presence of a calculus. This patient died, and a post-mortem examination showed that opening of the bladder—at any rate with a view of removing a stone—would have been useless as no stone was present, and Mr. Travers was congratulated upon his discrimination. As yet the amenities were preserved.

It was Sir Astley Cooper's lectures, or rather their too faithful reporting in THE LANCET, which did the mischief. Sir Astley Cooper had a very intelligible and rational contempt for the routine treatment with mercury of certain complaints and expressed himself concerning it as follows[4]:—

"To compel an unfortunate patient to undergo a course of mercury for a disease which does not require it is a proceeding which reflects disgrace and dishonour on the character of a medical institution. No consideration shall induce me to repress my feelings on this subject; no authority shall restrain me from giving full expression to these feelings. As long as I continue a surgeon of Guy's Hospital I will endeavour to do my duty; but I care not whether I continue a surgeon of that hospital another day. I do say that the present treatment of patients . . . . . in these hospitals, by putting them unnecessarily under a course of mercury for five or six weeks, is infamous and disgraceful. The health of a patient is, perhaps, irremediably destroyed by this treatment; and after all not the slighest effect is produced by it on the disease."

Immediately after the publication of this vigorous indictment of his colleagues by the omnipotent prince of surgery, meeting after meeting of the surgeons of the United Hospitals took place, and one week later Sir Astley Cooper stated that new and improved regulations concerning these cases had been agreed upon. Wakley was not a little jubilant at this public announcement, for it enabled him to point to an undoubted instance where the publication of lectures had been of good. Sir Astley Cooper had fulminated against the abuse of the mercurial treatment at the Borough Hospitals on previous occasions to the students, but no practical reformation had ever resulted therefrom. No sooner, however, were his words made public in THE LANCET to the whole profession than reform, drastic and salutary, followed. Wakley's little self-congratulatory crow was natural and inoffensive, but it happened that Sir Astley Cooper in making public the designs for better administration in the faulty wards made an ingenuous disclaimer of having been actuated in his previous plain-speaking by any desire to ignore the feelings of the surgeons of the Borough Hospitals.

[4] THE LANCET, May 15th, 1824.

"Who are the men, gentlemen," he said, "against whom it has been supposed that these observations were directed? Are they men whom I could possibly feel disposed to injure? Mr. Travers was my apprentice, Mr. Green is my godson, Mr. Tyrell is my nephew, Mr. Key is my nephew, Mr. Morgan was my apprentice." Wakley rallied Sir Astley Cooper on the nepotism thus naïvely revealed, professing himself to be convinced that it was impossible that Sir Astley Cooper should be actuated by other than friendly feelings towards such a family party—"a party united to each other, not only by the amiable ties of consanguinity, but by the no less delightful *vinclum* of a common participation in £3600 which they annually extract from the students." That same day (May 22nd, 1824) Wakley was excluded from attendance at the Borough Hospitals by order of the surgeons to the institutions, and from that moment for upwards of ten years the relations between THE LANCET and hospital officials, already strained, became those of overt and uncompromising hostility. The attitude of the officials was reasonable from their point of view. They looked upon the hospitals as theirs, not the public's. As a simple chronicler of events the medical journalist would be tolerated about their paths, a certain sort of publicity having its value to them; but if he began with criticism to spy out all their ways, to reflect upon the wisdom of their operations, the language of their lectures, their ties of consanguinity, and the substantial nature of their emoluments, he must be expelled. Wakley's attitude was equally reasonable. These men, he said, fear publicity, because they habitually betray their trusts. They discharge public duties inefficiently and fear lest the public should find them out. Therefore they drive out the truth-teller from among them.

Spurred on by a sense of duty, and not made more suave in his language by a rankling sense of the insult that had been put upon him, Wakley continued his Hospital Reports; and while he defied the authorities to prevent him from obtaining whatever information he desired, he spared no pains to prove to his readers that his view of their action was the right one—that they feared THE LANCET because they feared an ignominious exposure of their unworthiness.

(To be continued.)

THE ARMY ESTIMATES.

THE gross amount for the Army estimates for the year ending March, 1897, is £20,940,778, while the net estimate for the year is £18,056,600, which shows a net increase of £2800 on the previous year. The number of men to be provided for, exclusively of the army in India, is 156,174, an increase of 771 on last year. Turning to the items of interest to the medical services, we may say that the officers of the Army Medical Staff—including the headquarters staff—number 619, to which must be added 335 in the Indian establishment. Vote 2 provides for the medical establishment. The sum that is estimated as required for the year ending March 31st, 1897, on account of pay of the medical establishment, cost of medicines, &c., is £294,800, being a net increase of £2800 on that of last year.

Taking some of the sub-heads under which this vote is accounted for we find that the pay of the medical staff amounts to £233,200, exclusively of contingencies; that of militia medical officers and civilian medical practitioners to £10,600 (the estimated cost of medicines, &c., is £14,000); and that of pay for the medical staff corps, nurses, and other subordinates to £37,000. There are 6 surgeon-major-generals with 3 on the Indian establishment, 14 surgeon-colonels with 10 on the Indian establishment, and 474 medical officers of other ranks, with an additional 322 in India. The total numbers of the medical staff on the British establishment amount to 614 at a cost of £178,750 for home and £54,450 for the colonies respectively. The Director-General's pay is £1500 per annum, which is very small considering the size and distribution of the department he has to administer and all the duties and responsibilities of his office, especially when it is considered that the officer next in rank gets £1300 per annum. The total strength of the Medical Staff Corps is 2569, and the estimated total annual pay amounts to over £77,000. An appendix (No. 7) to Vote 2 gives a detail of the medical staff and subordinates in the different commands and districts at home and in the various colonial possessions. The estimated cost of the Army Medical School at Netley amounts to £7700, which is slightly above that of last year. The pay of the different professors ranges from £700 to £850 per annum. The total cost of the Staff College at Sandhurst, we notice, amounts also to £7700, that of the larger institutions, the Royal Military College and the Royal Military Academy, being, of course, much more.

The memorandum of the Secretary of State for War accompanying the Army Estimates gives a lot of supplementary and explanatory information in regard to various points, and to some of these it may be interesting to refer.

As regards Egypt, we are told that the events which have recently taken place in that part of Africa render it impossible that there will be any reduction of the Egyptian garrison during the current year. This has reference to the hope expressed by Sir Henry Campbell Bannerman last year that it might be found possible to withdraw a battalion from Egypt in 1895. The recruiting for the army during the past year has, we are informed, proved satisfactory. The establishment of the army on Jan. 1st last was complete; the number of special enlistments below the fixed standard had been progressively decreasing during the last five years, and the loss from desertion had been smaller in 1895 than in any year since the establishment of the short service system, to which we may add that the intelligence and education of recruits are improving and the amount of crime in the army has been steadily decreasing of late years. The new system of hiring transports in lieu of maintaining troopships has not been sufficiently long in operation to allow of a final decision as to the relative expense of the two systems, but so far the cost of hiring transports has not proved very great. Part of the expenditure for the Ashanti expedition has already been borne by the colony, but the remainder, £120,000, has been provided by means of a supplementary estimate. There is one item to which we may, in conclusion, call attention, because it touches the sanitary well-being of the army, and it seems to promise that the good work which has lately been prosecuted in providing good barracks and hospitals for the troops is still to be carried on. The sums of £4,100,000, raised under the Barrack Act of 1890, and £2,600,000, raised under the Imperial Defence Act of 1888, having now been virtually exhausted, it is intended, by means of a further loan, to proceed with urgent services for Imperial defence, and to provide for a steady prosecution of barrack reconstruction. The condition of the buildings in which a large part of the troops are housed, both at home and abroad, renders considerable expenditure for the latter purpose absolutely necessary.

THE BATTLE OF THE CLUBS.—XXIV.[1]

(Continued from p. 659.)

MEDICAL AID SOCIETIES IN SMALL HEATH.

EVERY medical man resident in Small Heath was invited to attend a meeting on March 6th last to consider the whole question of medical aid societies. There were present W. J. Notley, M.D. (in the chair), R. J. Adamson,

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Aug. 24th, 1895, Brussels; (2) Aug. 31st, 1895, Brussels; (3) Sept. 21st, 1895, Portsmouth; (4) Sept. 28th, 1895, Portsmouth; (5) Oct. 5th, 1895, Eastbourne; (6) Oct. 12th, 1895, Lincoln; (7) Oct. 26th, 1895, Lincoln; (8) Nov. 2nd, 1895, Grimsby; (9) Nov. 9th, 1895, Bexhill-on-Sea; (10) Nov. 16th, 1895, Hull; (11) Nov. 23rd, 1895, Hull; (12) Dec. 7th, 1895, York; (13) Dec. 14th, 1895, Northampton; (14) Dec. 21st, 1895, Fermanagh Medico-Ethical Association; (15) Dec. 28th, 1895, Northampton; (16) Jan. 4th, 1896, Birmingham; (17) Jan. 18th, 1896, Birmingham; (18) Jan. 25th, 1896, Club Practices in Rural and Mining Districts; (19) Feb. 1st, 1896, The Formation of a Provident Medical Association at Folkestone; (20) Feb. 8th, 1896, The Manchester Medical Guild and Medical Aid Associations; (21) Feb. 15th, 1896, The Leicester and Leicestershire Provident Dispensary; (22) Feb. 22nd, 1896, The Organisation of the Profession at Leicester; (23) March 7th, 1896, Loughborough: Local Efforts Defeated by Consultants from Neighbouring Towns.

T. A. Brown, M.B., A. B. Frost, A. Kingsland, J. Neal, H. Simms, F. W. Spiller, A. Stanley, F. R. Sutton, M.B.; and apologies were received from J. F. Taplin, M.D., and J. H. Mackenzie, M.B.

It was resolved:—

1. That in the opinion of this meeting it is unprofessional and undignified for medical men to hold office in any medical aid society or club in which "touting" is either openly or indirectly carried on.

2. That it is desirable that all those present who hold any such appointments shall collectively give notice by March 25th next, that they will terminate such engagements in three months from that date.

3. That a Medical Provident Club be formed for the neighbourhood of Small Heath, under the entire control of the profession, and open to every registered practitioner within the district (or neighbourhood), who shall sign a declaration to conform to the rules of the club, and not to hold office in any medical aid society or club in which "touting" is either openly or indirectly carried on.

A set of rules was then drawn up and agreed to, and officers were appointed for the first twelve months.

Great praise is due to the secretary of the Provident Club, who acted as whip, for to his untiring exertions the success of the meeting is in great measure due. Of the fifteen medical men in Small Heath only one stood out.

MEDICAL CLUBS AT STOCKPORT.

To the Editors of THE LANCET.

SIRS,—It will doubtless be of interest to the medical profession to hear what has been going on in Stockport.

In February of last year the Stockport Medical Society, through its council, drew up a scheme for club practice which met with the unanimous approval of the profession in the district as being fair to all parties concerned. An agreement was signed by every practitioner in the town binding himself not to accept any new club appointments nor any new members to his present clubs except on the terms of the scheme or such modification as might meet with the approval of a general meeting of the medical men. The scheme enclosed was then submitted to the clubs.

I.—Minimum payment (men only), 4*s.* 4*d.* per annum, on all who have been in benefit during the year, and resident within two miles of the club house.

II.—Members to attend at fixed hours when able. Messages for patients to be seen at their homes must be left, if possible, before a fixed hour. Only urgent cases seen on Sundays.

III.—Night visits and special visits are liable to be charged for as private visits.

IV.—Medical attendance to mean advice and ordinary medical and surgical attendance, exclusive of fractures, dislocations, and severe injuries, and all operations beyond opening superficial abscesses.

V.—Venereal diseases excluded.

VI.—Medicine bottles to be provided by patients or paid for.

VII.—Termination of appointment to be three months' notice on either side.

VIII.—Members with incomes over £100 per annum or occupying houses of £20 rental and over not to be included in medical benefits.

IX.—A fee of 2*s.* 6*d.* to be paid for examination of any candidate for admission to a club.

The clubs are thirty-eight in number and include about 4000 adult male members, the annual capitation fee being 2*s.* 6*d.* These clubs include Oddfellows, Foresters, Rechabites, and other friendly societies. There are, however, numerous other clubs in the town to which no medical officers are attached, and of these no notice was taken. Having submitted our scheme we awaited the replies. Practically no replies came; the clubs seemed to treat the matter with disdain. Accordingly at the beginning of this year the scheme was resubmitted to the various clubs, together with the following circular, signed by the particular medical officer, containing a request for the appointment of a delegate from each club to meet the medical men and discuss the whole question:—

"To the Committee and Members of ..... A scheme for the amendment of the present system of club practice was recently submitted to you on my behalf as embodying conditions which the medical practitioners of the town consider fair both to themselves and to the friendly societies. As you then declined to fall in with the suggestions offered, I now, as your medical officer, request you to consider the accompanying scheme and to appoint one member of your society, with instructions to act on your behalf, to attend a meeting of club representatives and medical men to be held at some time and place as may be arranged upon in the last week in February next in order to discuss the same and to come to a final understanding and agreement in the matter. Perhaps the selection of an impartial chairman would be agreeable to both parties. I have to inform you also that the medical men whose names are subjoined are in complete agreement in their intention to obtain an alteration in the present system, and none of them will accept any appointments except on the terms set forth in the scheme now submitted, or as may be agreed upon at the suggested meeting. I must request you to let me know before Jan. 31st, 1896, what your members decide to do in the matter.—Signed, ..., Medical Officer."

Of the thirty-eight clubs twenty-three appointed delegates, five flatly refused, and ten made no reply. However, one invitation card was sent to each club and a meeting was held, when the Mayor of Stockport presided. The usual arguments were brought forward by the medical men showing how inadequate the 2*s.* 6*d.* fee is for the work required. One surgeon, with an average of 560 club members on his books, gave nearly 5600 visits and consultations in 1893 and 1894 for a "remuneration" of 6·07*d.* per visit, medicine included. There is the usual complaint of the abuse of clubs by well-to-do members. It was also pointed out that forty years ago, when the 2*s.* 6*d.* fee was first accepted, the population of Stockport was 49,000, with sixteen medical men and very few practitioners in the surrounding villages, so that it may be safely computed that there was one medical man to every 4000 inhabitants. Now there are thirty-six practitioners in Stockport and the population is 75,000, and every village round has several qualified men in practice; at most a ratio of 1 medical man to 2200 of population. It was pointed out that in *all* practices there are certain standing expenses, and that the expenses of a practice do not by any means increase in direct proportion to the size of the practice—i.e., a practice of £1000 a year can be worked on expenses probably not more than 25 per cent. in excess of those of a practice of £600. The result is that our predecessors had larger scope for making their fortunes and a greater margin from which to allow for bad debts and unprofitable work. After a long discussion it was proposed that the delegates recommend a payment of 3*s.* 6*d.* per head. This was negatived by a large majority. The medical men then withdrew to discuss, and on their return they announced that they were unanimously determined to stand by the scheme as submitted, and failing its acceptance they were prepared to resign their appointments. The meeting then terminated. We are of opinion that our struggle should be brought to the knowledge of the medical world, since should the clubs refuse to accede to our demands two courses are open to them: (1) to dispense altogether with medical officers; or (2) to combine and appoint a medical officer to attend their members only, and this they threaten to do, at the same time starting a dispensary for the wives and families of the members. It may be remarked that under existing conditions should they introduce a new man of their own he would have charge of the health of some 4000 members scattered over a circle of seven and a half miles in diameter and an expectation of 20,000 visits a year at 6*d.* each.

On behalf of the practitioners of this town and borough I beg you to give publicity to our cause, a cause in which, if loyally supported by our brethren here and elsewhere, we are sure to win.

I am, Sirs, yours faithfully,

BASIL W. HOUSMAN, F.R.C.S. ENG.,
Hon. Sec., Stockport Club Scheme Committee.

Stockport, Feb. 28th, 1896.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6293 births and 4322 deaths were registered during the week ending March 7th. The annual rate of mortality in these towns, which had increased in the three preceding weeks, from 19·3 to 20·0 per 1000, further rose last week to 20·7. In London the rate was 21·7 per 1000, while it averaged 20·1 in the thirty-two provincial towns. The lowest rates in these towns were 14·1 in Croydon; 14·4 in Cardiff and in Hull; 15·2 in West Ham; and 15·9 in Derby; the highest rates were 23·3 in Oldham, 23·8 in Manchester, 24·6 in Liverpool, 25·4 in Plymouth, and 29·0 in Salford. The 4322 deaths included 590 which were referred to the principal zymotic diseases, against 561 and 580 in the two preceding weeks; of these, 250 resulted from measles, 157 from whooping-cough, 70 from diphtheria, 41 from diarrhœa, 35 from scarlet fever, 34 from "fever" (principally enteric), and 3 from small-pox. The lowest death-rates from these diseases were recorded in Swansea, Derby, and Preston, and the highest rates in Oldham, Birkenhead, Salford, Leicester, and Norwich. The greatest mortality from measles occurred in London, Newcastle-upon-Tyne, Salford, Leicester, Birkenhead, and Norwich; from whooping-cough in Sunderland, Sheffield, Bolton, Oldham, and Huddersfield; and from "fever" in Norwich.

The mortality from scarlet fever showed no marked excess in any of the large towns. The 70 deaths from diphtheria included 46 in London and 3 in Liverpool. Two fatal cases of small-pox were registered in London and 1 in Bristol, but not one in any other of the thirty-three large towns. There were 52 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 7th inst., against 60, 58, and 51 at the end of the three preceding weeks; 13 new cases were admitted during the week, against 12, 5, and 1 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2857, against 2944, 2937, and 2933 on the three preceding Saturdays; 244 new cases were admitted during the week, against 303, 234, and 244 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 377 and 404 in the two preceding weeks, further rose to 433 last week, but were 187 below the corrected average. The causes of 80, or 1·9 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Oldham, Bradford, Sunderland, and in ten other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Leicester, Preston, Sheffield, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·5 per 1000 in each of the two preceding weeks, declined again to 19·2 during the week ending March 7th, and was 1·5 per 1000 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 18·2 in Glasgow and 18·8 in Perth to 21·9 in Greenock and 23·5 in Paisley. The 560 deaths in these towns included 29 which were referred to whooping-cough, 11 to diarrhœa, 6 to measles, 6 to scarlet fever, 6 to diphtheria, 6 to "fever," and not one to small-pox. In all, 64 deaths resulted from these principal zymotic diseases, against 60 and 64 in the two preceding weeks. These 64 deaths were equal to an annual rate of 2·2 per 1000, which was 0·6 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 30, 32, and 27 in the three preceding weeks, rose again to 29 last week, of which 15 occurred in Glasgow, 7 in Aberdeen, and 3 in Edinburgh. The 6 deaths referred to measles showed a decline of 3 from the number in the preceding week, and included 3 in Glasgow. The fatal cases of scarlet fever, which had declined from 7 to 3 in the three preceding weeks, rose again to 6 last week, of which 3 occurred in Glasgow and 2 in Edinburgh. The 6 deaths from diphtheria corresponded with the number in the preceding week, and included 2 in Glasgow and 2 in Edinburgh. The deaths referred to different forms of "fever," which had been 5 and 2 in the two preceding weeks, rose again to 6 last week, of which 2 occurred in Dundee and 2 in Edinburgh. The deaths from diseases of the respiratory organs in these towns, which had been 120 and 111 in the two preceding weeks, further declined to 106 last week, and was less than a fourth of the very high number in the corresponding week of last year. The causes of 41, or more than 7 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 19·8 and 16·5 per 1000 in the two preceding weeks, declined again to 23·4 during the week ending March 7th. During the past ten weeks of the current quarter the death-rate in the city has averaged 25·0 per 1000, the rate during the same period being 19·7 in London and 17·5 in Edinburgh. The 157 deaths registered in Dublin during the week under notice showed a decline of 21 from the number in the preceding week, and included 7 which were referred to the principal zymotic diseases, against 2 and 9 in the two preceding weeks; of these, 3 resulted from whooping-cough, 2 from "fever," and 2 from diarrhœa, but not one either from small-pox, measles, scarlet fever, or diphtheria. These 7 deaths were equal to an annual rate of 1·0 per 1000, the zymotic death-rate during the same period being 3·7 in London and 2·3 in Edinburgh. The 3 fatal cases of whooping-cough exceeded the number recorded in any recent week. The deaths referred to different forms of "fever," which had been 3, 1, and 5 in the three preceding weeks, declined to 2 last week. The 157 deaths registered in Dublin last week included 23 of infants under one year of age, and 45 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed an increase upon the numbers recorded in the preceding weeks. Three inquest cases and 3 deaths from violence were registered; and 61, or more than a third, of the deaths occurred in public institutions. The causes of 15, or nearly 10 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

SURGEON-MAJORS MYLES and NODING and Surgeon-Captain BROWNE have arrived from India. Surgeon-Captain LUTHER has embarked for Malta on exchange. Surgeon-Major A. W. BROWNE has been appointed to the Women's and Children's Hospital at Devonport. Surgeon-Major MORRIS has been posted to Dover, and Surgeon-Major ROBINSON to Aldershot.

INDIA AND THE INDIAN MEDICAL SERVICES.

Surgeon-Major Samuel John Thompson, Deputy Sanitary Commissioner, North-West Provinces and Oudh, is appointed to officiate as Sanitary Commissioner, North-West Provinces and Oudh, during the absence on deputation of Brigade-Surgeon-Lieutenant-Colonel George Hutcheson. The services of the undermentioned officers of the Indian Medical Service (Bengal) are replaced at the disposal of the Military Department:—Surgeon-Captain Edmund Alexander William Hall, M.B., C.M., Surgeon-Captain Patrick Wilkins O'Gorman, and Surgeon-Captain Christopher Clemons Cassidy.

NAVAL MEDICAL SERVICE.

Fleet-Surgeon Francis Reginald Malcolm Loftie has been placed on the Retired List at his own request.

The following appointments are notified:—Surgeons: Hubert W. A. Burke to the *Medea;* Frederick W. Stericker to the *Research;* Henry W. Hull to the *Triton;* and Murray P. Jones to the *Wanderer.*

YEOMANRY CAVALRY.

Surgeon-Captain W. W. Wingate-Saul, M.D., to be Surgeon-Major.

VOLUNTEER CORPS.

Artillery: 3rd Middlesex: Surgeon-Major J. Cook, M.D., to be Surgeon-Lieutenant-Colonel. 1st Argyll and Bute: Surgeon-Lieutenant Banks, M.B., to be Surgeon-Captain. *Fortress and Railway Forces, Royal Engineers:* 2nd Gloucestershire (the Bristol): Surgeon-Major J. Knill to be Surgeon-Lieutenant-Colonel. *Rifle:* 2nd Volunteer Battalion the Welsh Regiment: Albert Wilberforce Shepherd gent., to be Surgeon-Lieutenant. 5th Volunteer Battalion the Durham Light Infantry: Surgeon-Lieutenant Richard Brown, M.B., is appointed Second Lieutenant.

Commissions signed by the Lieutenant-Governor of the Isle of Man: 7th (Isle of Man) Volunteer Battalion the King's (Liverpool Regiment): Surgeon-Lieutenant Thomas Mackenzie, M.D., to be appointed Second Lieutenant; William Richardson, M.D., to be Surgeon-Lieutenant.

THE CASE OF SURGEON-CAPTAIN FOWLER.

From what has already taken place in the House of Commons it seems clear that the case of Surgeon-Captain Fowler is not to be allowed to rest where it does at present. This officer was detailed for duty with a militia regiment during the annual training. On one occasion a gross act of impropriety took place, of which a senior captain of the regiment and Surgeon-Captain Fowler were the witnesses. We do not know which of them was the senior, for we suppose if the medical officer was not the senior he was not the responsible officer. The medical officer promptly remonstrated and with the desired effect, but he did not consider it his duty to officially take further notice of the matter by placing those implicated in arrest or by reporting it to superior authority to be dealt with as a matter of discipline because a senior captain of the regiment was present on whom he naturally considered, we presume, that

the duty devolved of taking action in the matter. The occurrence became known and a court of inquiry followed, but it does not appear that anything was stated as to the fact of a regimental officer of the rank of captain having been present. Surgeon-Captain Fowler was dismissed the service; he appealed, stating the circumstances, and was thereupon allowed to retire from the service. The captain, having since acknowledged that he was present, has been dismissed. Surgeon-Captain Fowler has nine years' service and, we believe, bears an excellent character; the punishment meted out to him seems to be very severe under the circumstances. The subject is one which certainly calls for further inquiry. It must be remembered that Surgeon-Captain Fowler had nearly served sufficient time to entitle him to a considerable sum as a gratuity, which may be regarded in the light of deferred pay for past service. Even assuming that from a military and disciplinary standpoint he failed to take the right course, it is highly probable that his motive was a very proper one and that he took what seemed to him the best course under the circumstances in the interest of the service.

THE ITALIANS IN ABYSSINIA.

The gravity of the disaster that has befallen the Italian army in Abyssinia is not only recognised by Italy but by the other Powers of Europe. Abyssinia is, from topographical and climatic points of view, a very difficult country for campaigning; it is mountainous and barren, without roads and with little available water and great diurnal variations of temperature. The force at the disposal of King Menelik was a large and overwhelming one, and his troops had the advantage of knowing the country and of course occupied the best available positions. That the fighting was very severe and that the Italian troops behaved with remarkable courage and gallantry are undoubted; they were, however, not only outnumbered but surprised and outmanœuvred also. The Shoans, we are told, in the excitement and vigour of their onslaught paid no respect to the hospital corps, firing both on the medical officers and wounded. The losses on both sides were severe, and there is no doubt that the Shoans had a very large number of their men slain and wounded and that they were too much crippled to follow up their success. A telegram from Massowah to the Central Committee of the Red Cross Society at Rome announces that mountain ambulances have been dispatched to the Shoan camp to the aid of the wounded Italians. The situation of the Italian force in Abyssinia is still critical. The news of the evacuation of Kassala has not been confirmed, and it seems unlikely that the garrison would incur the grave danger to which they would be exposed by evacuating it. Adigrat, which is still held by the Italians, is said to be a very strong position.

THE ENTRANCE EXAMINATION FOR THE ARMY MEDICAL STAFF AND INDIAN MEDICAL SERVICE.

We hear that a redistribution of the marks obtainable at the entrance examination for the Army Medical Staff and Indian Medical Service is being seriously contemplated. The proposal, as far as we understand it, is to give a greater number of the total marks to the subjects of medicine and surgery and to reduce those awarded for anatomy and physiology and chemistry and pharmacy. We hope the matter will be seriously considered before any change is made, as it appears to us that the standard of the candidates might be lowered if the entrance to the Netley course is to be won almost certainly by a high percentage of marks in medicine and surgery only. Under the rules now obtaining the university graduate, who has passed through a more extended training in anatomy, physiology, chemistry, and the natural sciences, has a distinct advantage over the licentiates of the different colleges, and it must be to the advantage of the Army Medical Services to still attract men who have graduated at universities. It has often been said that, considering their opportunities, the medical officers have contributed little to the world of science. To reduce the standard of marks in scientific subjects may prove a distinct retrogression and especially as far as the Indian Medical Service is concerned. It appears to us that if any changes are to be made in the examination they should be in the direction of increasing the possible number of marks which can be gained in languages and the natural sciences, as on these extra marks the position of the candidates on the lists usually depends.

THE DRAINAGE OF ALDERSHOT CAMP.

The Treasury has still under consideration a contribution by the Government to the cost of the drainage of Aldershot urban district in lieu of rates, and so a scheme of surface water disposal has not met with approval at the War Office. The urban council had included the surface drainage of the Wellington Lines in their scheme, but the War Office think, in the circumstances named above, it is "inadvisable to include in the draft a provision for a contribution from army funds to the proposed drain." It is necessary that a large main be put in at once; but the council is doubtful in the event as to how they will stand with the Government authorities with regard to their share of the cost, especially if the whole of the sewerage scheme with its proposed Treasury contribution be thrown out. It has been decided to do the work, however, and ask for the necessary Local Government Board inquiry.

ANTHROPOMETRY IN INDIA.

The *Times of India* says: "While we hear but little of the progress of the Bertillon system of anthropometry for the detection of criminals in Bombay, the further development of the process is being prosecuted with untiring energy on the Bengal side, where, although still in its infancy, it has been gratifyingly fruitful in results. An officer in Bengal was deputed during the year to instruct the Bombay Police in the Bengal system, and another officer was sent to the North-West Provinces with the same object. In due course the Bertillon net will be spread all over the country, and we shall in the fulness of time doubtless see a large diminution in the serious crime for which the habitual offender is so largely responsible."

By the selection of Surgeon-Major-General J. Jameson as successor to Sir W. A. Mackinnon, K.C.B., in the office of Director-General, Army Medical Staff, an additional vacancy in the rank of Surgeon-Major-General will be created, as Dr. Jameson would not have been due for retirement till August, 1897, whereas Surgeon-Major-General Paterson will be retired for age in July next.

Correspondence.

"Audi alteram partem."

THE TWELFTH INTERNATIONAL MEDICAL CONGRESS AT MOSCOW.

To the Editors of THE LANCET.

SIRS,—I beg to forward you copies (translations) of two documents which I have received from Professor Erisman, the general secretary of the Twelfth International Medical Congress. The first relates to the languages which will be admitted in the discussions at the Congress, the second to the subdivision of the Congress into sections. Professor Erisman will be greatly obliged if you will publish them in the columns of THE LANCET. I should add that I have also received from him a private letter in which he urges, in even stronger terms than in the enclosed, the points that are there set forth.

I remain, Sirs, yours obediently,

YOUR ST. PETERSBURG CORRESPONDENT.

I. (TRANSLATION.)

In order to avoid undesirable controversy upon the twenty-first paragraph in the regulations of the Twelfth International Medical Congress, which recognises French as the official language of the Congress, but admits the use of other European languages at the general meetings and of German and Russian in addition to French at the sectional meetings (from which English, Italian, and all other European languages will be excluded) the committee of the Congress deem it necessary to offer the following explanation to their foreign colleagues. The inconvenience arising from the use of a large number of languages has become increasingly evident in previous congresses until, after that at Rome, the medical press of all countries repeatedly urged the necessity for recognising some one official language for all papers and discussions at future Congresses, and French was unanimously named as the most suitable. The Medical Faculty of the University of Moscow, in drawing up the regulations of the twelfth Congress (to which the executive committee were bound to adhere), could not but take into consideration this persistent demand of the medical press, and therefore recognised French as the official language of the Congress, French being the language of diplomacy, and the tongue which has long served for international communications between the governments of all European countries. But on the present occasion it proved impossible to carry out the principle of one language to the exclusion of all others. It was found that Russian must be admitted, even if only in principle. At the same time, however, both the Medical Faculty and the Executive Committee felt that from a sense of delicacy (*delicatnost*) towards their foreign guests, Russian members of the Congress should refrain, as much as possible, from the use of their own tongue,

as it is so little known to foreigners. But under these conditions a new difficulty appeared. A large number of Russian medical men who have studied at German universities or from German text-books know German better than they do French, and therefore to admit the use of French alone would have been extremely irksome (*štěsnitelnuim*) for our Russian colleagues, who would have already refrained, on the ground above mentioned, from using their own language. Consequently the medical faculty did not think itself justified in excluding altogether the possibility of speaking in German as an alternative to French. But, while admitting on these grounds two foreign languages to the discussions at the Congress, we do not hide from ourselves the fact that we have departed, albeit from necessity, from the principle of a single language, and we are of opinion that for future Congresses every effort should be made to return to that principle in its strictest form.

(Signed) F. ERISMAN,
General Secretary of the Twelfth Congress.

II. (TRANSLATION.)

In dividing the Congress into sections (paragraph 7 of the regulations) the Medical Faculty of the University of Moscow has in the main preserved the plan adopted at the Congresses of Berlin and Rome, and the principal sections of the next Congress will correspond, with some minor exceptions due in part to local conditions, to those in use on previous occasions. A more important departure from the practice of former Congresses has been introduced in a few sections where it was thought desirable to unite certain specialties under one head. Thus, for instance, hitherto otology, laryngology, and odontology have formed entirely separate sections. On the present occasion both the faculty of medicine, and the executive committee, while they fully recognise the independence of these specialties, have thought it better to join them to the general section of "surgery," in order to show that they belong essentially to the great field of clinical medicine in general and surgery in particular. It need scarcely be said that this innovation will not in any way whatever limit the opportunities of representatives of these specialties to discuss them at the Congress; but it will, on the other hand, enable general surgeons to take part in the discussions of subjects so closely allied to their own work as otology, laryngology, and odontology, and *vice versâ*. Consequently, this measure should in no way be regarded as one that will inconvenience specialists, but as a justifiable attempt to do away with the inevitable evil results of extreme subdivision in the subjects considered by the Congress. The same thing may be said with regard to matters relating to military medicine. The character of this group has never been clearly defined at former Congresses. In Berlin it was called "Military Sanitaria"; in Rome, "Military Medicine and Surgery," while as a matter of fact it included subjects belonging to every branch of medicine as applied to military matters, though the most important, of course, were those of field surgery and sanitation in the army. Consequently the medical faculty, while recognising a certain independence for this group of subjects (in Subsection IX a), has at the same time thought it best to join it to the general section of Surgery (Section IX). For the like reasons all branches of Practical or Applied Hygiene, which have sometimes formed special sections (e.g., Railway Hygiene, Sanitary Technique, &c.), have been united by the committee to the general section of Hygiene, as it seemed better that such questions should be discussed by all members of the Congress interested in hygiene, whether from a theoretical or a practical point of view. After what has been said no objection will probably be raised to the addition of Hydrology and Climatology to the section of General Therapeutics and Pharmacology. We repeat that both the medical faculty and the executive committee, in making these changes, have been far from the desire to cause inconvenience to specialists, and had in view solely the wish to emphasise the real union between different specialties; and they feel convinced that such an attempt to bring together the work done in the separate groups of subjects cannot but prove of general advantage.

(Signed) F. ERISMAN,
General Secretary of the Twelfth Congress.

"THE MEDICAL DEFENCE UNION, LIMITED, AND THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED."

To the Editors of THE LANCET.

SIRS,—The only error in your reporter's account of what I said with reference to the proposed amalgamation at the annual meeting of the Medical Defence Union is that in reporting the sentence quoted by Dr. Heron and Mr. Bruce Clarke in their letter to you of Feb. 29th your reporter uses the word "committee" in place of the word "Council" as used by me, and I did not think that this trivial inaccuracy in your otherwise excellent report needed any public correction on my part. Up to March 6th, 1896, the only point of difference remaining was, as I stated, that of "the name of the amalgamated bodies"; whether, in fact, the registered name agreed upon by all the delegates—viz., Dr. Heron, Mr. Bruce Clarke, Dr. Bateman, and Mr. Horsley—namely, "The Medical Defence Union, Limited," should be changed or not. It is not in any sense legally necessary for the purposes of amalgamation to make such change, and since all the delegates agreed that upon all official papers and documents the words, "with which is amalgamated the London and Counties Medical Protection Society," shall follow the word "Limited" in the title, the fact of amalgamation will be made so plain that this question is clearly not a point that can reasonably check the further progress of the amalgamation in question. On March 6th, however, Mr. Oakley, solicitor to the London and Counties Medical Protection Society, raised a number of fresh obstacles, which I sincerely hope and expect the combined Councils will have no difficulty in removing.

I am, Sirs, yours faithfully,
VICTOR HORSLEY,
March 11th, 1896. President, Medical Defence Union.

"FUNCTIONAL APHONIA IN MAN; TREATMENT, ETC.; WITH SPECIAL REFERENCE TO SO-CALLED VARICOSE VEINS AT THE BASE OF THE TONGUE."

To the Editors of THE LANCET.

SIRS,—I notice that most of the letters published by you upon the above subject are written by throat specialists; I think it not out of place therefore that your readers should know some of the experiences of a general practitioner. In one case a patient of mine contracted a sore throat whilst taking a short holiday in London. He was persuaded by his friends to consult a throat specialist; he was told that he had varicose veins at the base of the tongue, and to make it more clear to him it was explained that he had "piles" in that region. The electric cautery was used, and the result was a great deal of pain and, of course, no relief of the throat symptoms. A few days after the patient returned home and had a very severe pneumonia from which he almost died. In two other cases, one of simple aphonia and another of simple enlarged tonsils, the electric cautery was again applied for so-called "varicose veins." In the first case no good result was obtained until the patient had a prolonged rest at the seaside, and in the second not until I had removed the tonsils a month after. At the present time I have a patient who was taken ill with a violent fit of coughing whilst paying a visit in London. He was hurried by his friends to a throat specialist who at once found the conditions supposed to be present in the other cases I have mentioned and, in addition, also a "turbinal varix." This patient still goes up to town at short intervals and undergoes excruciating agonies as the result—and only result—of the use of the electric cautery. In conclusion, I would suggest that these cases of so-called "varicose veins" (which have only comparatively recently been discovered) in all probability have always existed, and in a large general practice I am unable to discover that throats are more unhealthy now than they were twenty years ago, and presumably these "varicose veins" have appeared and disappeared in many throats without operative interference of any kind. There is one question I should like to ask before closing this letter. Is the good old custom of the specialist writing his opinion, &c., of a case falling accidentally into his hands to the usual medical attendant gone out?

Believe me, Sirs, yours very faithfully,
Salisbury. HARCOURT COATES.

To the Editors of THE LANCET.

SIRS,—Much to my regret, Mr. Lennox Browne, by his letter in your current issue forces me to return to a subject which, in the minds of some of your readers, including myself, concerns the honour of laryngology. I feel it especially incumbent on me to claim your indulgence in further encroaching on your space to render my position in regard to this subject clear, inasmuch as Mr. H. T. Butlin, Dr. de Havilland Hall, Dr. Greville Macdonald, Dr. Felix Semon, and Mr. Charters Symonds, by their conjoint letter in your issue of Feb. 29th, "fully endorse" my views as stated in my communication in THE LANCET of Feb. 22nd. The fact that five physicians and surgeons known throughout the profession as distinguished laryngologists should take this course is in itself a sufficient indication of their intense desire to dissociate laryngology from narrow and exaggerated views and practices based thereon. Mr. Lennox Browne addresses you thus (THE LANCET, March 7th, p. 653):—"I venture to advise the signatories" (to the above-mentioned conjoint letter) "to compare my article in the *Liverpool Medico-Chirurgical Journal* with the letter of Dr. Watson Williams in your issue of Feb. 22nd. That gentleman having read the communication wrote to me in the past week, regretting that he had overlooked it, and saying that he was in entire accord with the opinion I have expressed as

to the importance of looking beyond the local causes in these affections."

With all courtesy I very strongly protest against Mr. Lennox Browne twisting a sentence (see below) used in reference to an expression in a private letter from him, so as to make it appear to refer to his published communications, and to involve me in a partial recantation from the position I took up originally, a position from which I cannot depart. I impute no motive to Mr. Lennox Browne, but your readers will judge for themselves whether he has been fair to myself, and therefore to the signatories who endorsed my statements. On Feb. 21st Mr. Lennox Browne, seeing my letter in THE LANCET, wrote to me as follows: "I am posting you a copy of my paper to the *Liverpool Medico-Chirurgical Journal*. I don't think I have ever been one not to recognise and even to enforce the importance of looking beyond local causes, and I hope you will find that I am not behind in that respect in the subject now under discussion." On Feb. 22nd I replied in these terms: "Thank you much for your courtesy in sending me a reprint of your recent article just to hand, which I am sorry to say, had escaped my notice. I am certainly in entire accord with the opinion you express in your letter as to the importance of looking beyond local causes in these affections."

Now I did not express any opinion on Mr. Lennox Browne's article in my letter of acknowledgement to him, for I did not feel called upon to do so (and in fact had not read it when I wrote that letter), and I would refrain from any personal criticism whatever had he left me any option in the matter. In my first letter to your journal, I referred to no one in particular in my protest against the caricature of laryngology as a branch of scientific medicine which I considered was in danger of being mistaken by some practitioners for a genuine portrait. But Mr. Lennox Browne will forgive me for feeling that he compels me to conclude that (judging from his publication in the Liverpool journal) he must be the head and forefront of the offenders as regards lingual varix, since he finds that 28·3 per cent. of all the cases seen in his private practice suffered from this affection, and that in 28 per cent. of his "varix" cases the varicose condition "was unassociated with any other objective local evidences." When we are left to infer that all these cases are treated by him by the galvano-cautery point I think Dr. McBride was well warranted in writing, "if we are to cauterise every venous radicle which appears in front of the epiglottis we shall put our patients to much needless inconvenience, and perhaps to some very unnecessary expense." In calling attention to these figures I impute no mercenary motive to those who may, in my opinion, exaggerate the importance of these venous radicles, but the results to the patients for good or evil remain the same, whatever the motive.

I am, Sirs, yours faithfully,

Clifton, Bristol, March 8th, 1896. P. WATSON WILLIAMS.

P.S.—I shall feel grateful if you would kindly forward an early proof of the above to Mr. Lennox Browne, so that he may correct me if I have unintentionally misconstrued his communications at the same time as this appears.

To the Editors of THE LANCET.

SIRS,—I am obliged to you for adopting the courteous suggestion of Dr. Watson Williams that I should see an early proof of his letter, and I hasten to take advantage of the opportunity thus given me of promptly correcting him. He has certainly misconstrued my allusion to him, for it must be evident by context of the two letters that I quoted him in the belief that he, having read not only my letter but the article which had previously "escaped his notice," acknowledged that I had not failed to recognise "the importance of looking beyond local causes in these affections." Dr. Watson Williams breaks new ground on which, were I disposed, I could further correct him, but I will not trespass on your space.

I am, Sirs, yours faithfully,

LENNOX BROWNE.

Mansfield-street, Portland-place, March 11th, 1896.

To the Editors of THE LANCET.

SIRS,—In your last number Mr. Lennox Browne refers to my previous letter as if it supported his views and condemned those of Dr. Tilley, Dr. Watson Williams, Dr. Semon, Dr. de Havilland Hall, Dr. Greville Macdonald, and Mr. Butlin and Mr. Charters Symonds. On reference to the letter in question it will at once be seen that exactly the reverse is the case. Let me, Sirs, once more repeat my belief that dilated veins on the tongue rarely, if ever, cause symptoms or require local treatment. I hope that this will not admit of any misinterpretation.

I am, Sirs, yours faithfully,

Edinburgh, March 10th, 1896. P. MCBRIDE.

"THE HUDDERSFIELD POISONING CASE."

To the Editors of THE LANCET.

SIRS,—I see in the notice *re* the Huddersfield poisoning case in THE LANCET of Feb. 29th that you say it was unfortunate that no urine was taken, but in this you have made a slight mistake. I may say the urine was examined the first of all and in it was found mercury, but I had no proof as to how it had been administered or by whom, and my wish was, if possible, to bring the crime home to the right person. I am, Sirs, yours truly,

L. DEMETRIADI.

New North-road, Huddersfield, March 2nd, 1896.

"MEDICAL CERTIFICATES AND THE BOARD SCHOOLS."

To the Editors of THE LANCET.

SIRS,—Will you kindly do me the favour to give space in THE LANCET to draw attention to the right of refusing to give certificates to scholars of School Boards? The parents of the children who happen to be my patients bring me a form supplied by some School Board official to be filled and signed. I have refused to sign them, remarking that I am not a paid servant of the School Board, and that in case they are summoned I am quite prepared to give evidence that the child was not fit to go to school. These remarks were communicated to the official, who made a complaint to the Board about my conduct. The chairman called on me about it and said that legally I had a perfect right to refuse to give certificates without a fee, but that I was the only one who refused to do so, adding that if other local practitioners followed my example the Board would seriously consider the question of granting a fee. Now, Sirs, I ask your opinion whether I have adopted a proper course in doing so; if it is so, why should my brother practitioners not follow the same plan to gain our much-abused rights? Lately I have read so much about the insult offered to the profession by some of the School Boards that it is high time we did something to stop it. I am, Sirs, yours faithfully,

J. F. D'ABREU, L.R.C.P. Edin., &c.

Handsworth, March 10th, 1896.

"THE COMPARATIVE NUTRIENT VALUE OF MEAT PREPARATIONS."

To the Editors of THE LANCET.

SIRS,—I regret that when writing the letter which, under the above heading, you kindly inserted for me in THE LANCET of last week, my memory did not serve me rightly in the reference I made to an account which *Food and Sanitation* published several months past on this subject, and which error I wish, with your kind indulgence, to correct. In the absence of the article referred to, to ensure my recollection, I said that in that paper bovril was stated to be one hundred and fifty-two (152) times superior as a nutrient to Valentine's meat juice, whereas I find on looking over and working out "Professor Chittenden's Percentage Composition of Beef Products, analysed 1891" tables, which you print on page 649 of your journal (March 7th, 1896), and from which presumably *Food and Sanitation's* calculations originated, that Liebig's extract of beef is the preparation whose proportion of "total proteid matter available as nutriment" or of nutrients as I understood *Food and Sanitation* to then imply, is so fractionable when opposed to that of bovril. This difference was, I am inclined to think, a novelty to others as well as to myself at the time, as upsetting previous ideas. With regard to Valentine's meat juice I think I need offer very little apology to *Food and Sanitation* for the mistake I made, considering the esteem in which it is held by that publication. Its value as a nutrient under the same conditions as before, I reckon from the same tables, must have been estimated by your contemporary at sixteen

and a half (correctly 16·581) less than that of bovril. Assuming as correct that it did, I have no doubt my mind was influenced by its declaration, since for some time past I have been under the impression that bovril was a better food than Valentine's meat juice. Well do I recollect, and not so very long ago either, when I understood that the value of these two products as nutrients was in a somewhat inverse ratio to that which *Food and Sanitation* makes it out to be; and now that you have pointed out that *Food and Sanitation*, in stating that Valentine's meat juice is about equivalent to "the water in which dinner plates are washed," omitted to define the scope of Professor Chittenden's investigation as limited or as only giving "the total amount of proteid matter contained as compared with the amount in fresh lean beef," without entering into the considerations of extractives and other stimulating constituents, I will henceforward conclude that *Food and Sanitation*, in not accepting your challenge of an independent inquiry into the matter, has failed to substantiate its assertions and has erred in its view of the subject, either through ignorance of what it is talking about or from a want of due consideration, and I will therefore revert to my old opinion—viz., that bovril is "not comparable with Valentine's meat juice"—until it is proved to me to be wrong by an unquestionable authority. Thanking you in anticipation for your favour,

I am, Sirs, yours faithfully,

Llansilin, March 9th, 1896. R. HILL SHAW, M.B. Dub.

To the Editors of THE LANCET.

SIRS,—Your annotation of Feb. 22nd, whilst justly emphasising the vital importance to medical men of a thorough knowledge and confidence in the relative value of meat preparations, also indicated the only sound principles of their production. As further interest has been shown in the subject I venture to draw your attention to two points which may throw some light upon the matter. In the first place you give marked prominence to albumin as being the predominating proteid of meat juice. According to our text-books this is incorrect. Halliburton even says that dry albumin is identical with a variety of serum albumin coagulating at 73° C. and is present in extremely small quantities.[1] The predominant proteids are globulins (chiefly myosin in the proportion of 10 per cent. to 15 per cent.), which coagulate at lower temperatures than does albumin—viz., myosinogen at 56° C. and myoglobulin at 63° C. There seem to be no figures given as to the exact amount of albumin in muscle, but there can be no doubt that it exists only in insignificant quantities, the heat coagulation being obviously due chiefly to the globulins, a point which can be determined by carefully applying the test and confirmed by saturation, so exposing any sophistication by added albumins. It does not follow, therefore, that because a meat juice conforms to the heat coagulation test it is necessarily a pure muscle juice expressed in the cold.

Another point to which I would draw your attention is the inconsistence of a cooked meat flavour occurring in a preparation which has been expressed in the cold. The aromatics must either have been added or developed by the aid of heat. With regard to the meat juice which you mention (Valentine's) I find that according to the specification it is not prepared by a cold process, but is exposed to a temperature just below 140° F. (60° C.) for fifteen minutes before it is expressed. So far as I am aware there is only one meat juice which has not a cooked flavour, and it is prepared entirely by expression in the cold. That one is liquor carnis, and I must say that its taste does not commend it, yet there is no doubt that it is a pure muscle juice, prepared by the method which you justly emphasise as being essential to the maintenance of purity and nutrient value. The chemistry of muscle, whilst satisfying physiologists, fails to afford tables which represent either the real or approximate composition in a practical way useful to the practitioner, and an authoritative statement as to the composition of muscle would, I feel sure, be greatly appreciated.

I am, Sirs, yours faithfully,

Devonshire street, W. WYATT WINGRAVE.

"NUTROA FOOD."

To the Editors of THE LANCET.

SIRS,—In answer to the letter of Dr. Halliburton in your issue of the 29th ult., I feel it incumbent on me to say that the statement to which he objects is based on a report on Nutroa Food written by me and furnished to the proprietors of that food. Its consequent publication by them was therefore absolutely a matter of good faith. In reply to Dr. Halliburton's categorical statement I wish to point out:—1. That the figures referred to were derived from a published work by Dr. Halliburton, and therefore his sanction for the mention of his name as the authority for them was neither asked for nor required. 2. That the expression "Ideal diet for Children" was never attributed to Dr. Halliburton by me, but is a phrase for which I assume the entire responsibility. 3. That while the figures quoted are given by Dr. Halliburton as the "average minimum diet," yet the table from which they are derived is widely if not universally recognised as the authority on the most desirable *proportion* of each constituent of a standard diet. Its use for this purpose is perfectly familiar to food specialists. In fact Dr. Halliburton's complaint that the first line of the table is ignored is in itself an indirect admission that he also regards it as such. My instructions when requested to experiment with and report on Nutroa Food were that I should obtain and place side by side with analyses of Nutroa Food some independent data as to what was the most desirable proportionate composition of children's diet of different ages. My own view is that figures giving such most desirable proportionate composition are to that extent representative of an "ideal" diet; but in any case the word "ideal" is mine, and I have not the slightest wish to make Dr. Halliburton responsible for its selection instead of any one of a dozen other equally suitable phrases.

It is entirely misleading to suggest that the figures as given are intended to apply to infants under the age of eighteen months. My report first deals with children of mature age (and for such Dr. Halliburton does not contest the suitability of Nutroa Food); it then proceeds to deal with the food of "very young infants," and points out that they require a different diet. The report, so far from ignoring their requirements, contains a table in which is given side by side the composition of human milk and Nutroa Food as directed to be prepared for infants by the makers—viz, with the admixture of a small quantity of fresh cow's milk. It is on the evidence adduced in this section of the report that the claim of Nutroa Food to be considered a valuable constituent of infantile diet is based. I must further point out that my report does not ascribe to Dr. Halliburton in the slightest degree any responsibility whatever, direct or indirect, for any opinion as to the merits or demerits of Nutroa Food, whether as a food for children of mature age or for young infants.

Dr. Halliburton concludes his letter by saying that "he does not consider this food in any sense a substitute for human milk." I am pleased to be able to say that after many months' investigation I have come to a diametrically opposite conclusion. I not only consider that Nutroa Food as directed to be prepared for infants by the makers is a substitute for human milk, but further that among prepared foods it is far and away the best substitute which it has yet fallen to my lot to examine.

I am, Sirs, yours very truly,

35, Queen Victoria-street, E.C. WILLIAM JAGO.

To the Editors of THE LANCET.

SIRS,—In reply to Dr. Halliburton's letter in your last issue will you kindly permit us to say that the pamphlet advertisement referred to was based on a report received by us from Mr. Wm. Jago, F.I.C., F.C.S., whose high and honourable repute as a chemist and specialist in the department of food products amply justified us in using his report without question? We may mention, however, that we have already had some correspondence with Dr. Halliburton on this subject; and that although we considered, and still consider, that the quotation of that gentleman as authority was perfectly legitimate, yet we told him that we would remove his name from all future reports and would if he wished make no further use of those already in print. Our sole reason for doing this was that we had no desire to do anything which should be objectionable to Dr. Halliburton; and, further, we expressed regret for any annoyance we had unintentionally caused him. We venture to submit that in so doing we have done all that can reasonably be expected of us. We would ask the members of the medical profession to whom this dispute is of any interest to apply to us direct for a copy of Mr. Jago's report, and to judge for themselves

[1] Journal of Physiology, vol. viii., p. 197.

whether we have in the slightest degree misrepresented the properties and character of Nutroa Food.

So far as Dr. Halliburton's opinion that Nutroa Food is not a substitute for human milk is concerned we may, perhaps, be permitted to add that that gentleman is in a very small minority, as we have abundant evidence of the marked success attending the use of Nutroa Food *when properly prepared* according to directions as a food for young infants.

We are, Sirs, yours truly,

NUTROA, LTD.

(C. Simpson, Managing Director.)

London, March 5th, 1896.

THE NEW PHOTOGRAPHY.

To the Editors of THE LANCET.

SIRS,—Great improvements have been made during the past few weeks in the Roentgen photography, and the process has now been sufficiently developed to render it of practical value in surgery and medicine. Its successful application, however, requires expensive apparatus and special appliances, the working of which necessitates some technical knowledge. Under these circumstances, on the advice of several eminent physicians and surgeons, I have decided to establish at this address a laboratory specially devoted to the purpose. This will be equipped with the most improved apparatus, which will be added to as experience and experiment show to be advisable. The work will be carried out under my supervision by one of my assistants, Mr. H. L. Tyson Wolff. It is hoped that these arrangements will prove of service to medical men who may desire to have the process applied to their patients. The laboratory will, it is expected, be in working order in the course of a few days. I am, Sirs, yours faithfully,

66, Victoria-street, S.W., March 10th, 1896. A. A. C. SWINTON.

"THE WORKING CLASSES AND OUR HOSPITALS."

To the Editors of THE LANCET.

SIRS,—In your leaderette under the above title you have honoured us by criticising our letter to the *Times* suggesting a systematic adoption of a plan which we have only tried for several years past—viz., inducing our employés to give a small contribution to hospital support and to which our firm adds a like amount. We may at once state that neither we nor our workpeople "regard hospitals as places to which the working man could go as of right and demand attendance for the ordinary ailments and accidents of his family," as, although not stated in our letter to the *Times*, we possess a sick fund supported entirely by the men, many of whom also belong to friendly societies, from which they also obtain medical attendance. Therefore we cannot be charged with "a misconception of the *raison d'être* of the hospital system," but we do consider that in case of serious accident in which the want of immediate attention may mean the cost of human life, or "in cases of gravity beyond the ordinary means of a working man" is the *raison d'être* of the hospital system, and not for the relief of the feelings of the benevolent rich alone, upon which the writer of the article appears to lay such stress. Our suggestion was made more for the purpose of obtaining auxiliary support from those who can afford to give and who would most likely obtain hospital assistance. And we reiterate "that there are thousands of employers in London"—shopkeepers, manufacturers, &c.—willing to double the halfpenny their employés can well afford to give; and this system, if taken up by persons ready to do good but who perhaps may not see the way, might place the hospitals of London in the position of plenary effectiveness without the perennial necessity of an appeal.

We are, Sirs, yours faithfully,

HORATIO MYER AND COMPANY.

Surrey Ironworks, Vauxhall, March 9th, 1896.

*** We gladly insert the letter of Messrs. Myer and Company showing their clear perception of the difference between giving charitable help to hospitals as charities and paying contributions to them as if they were provident dispensaries. We hope the publication of their letter will do good in making the difference clear to others—employers and employés.—ED. L.

"WHAT IS A NATURAL LABOUR?"

To the Editors of THE LANCET.

SIRS,—Dr. Fraser's letter in THE LANCET of Jan. 18th reminds me of an episode in my life many years ago, when I went up to a certain College of Surgeons, with the view of obtaining a diploma in midwifery. I considered I was fairly well informed in the theory, having studied the works of Tyler Smith and Edward Rigby. One of the questions at the *viva-voce* was, What is a natural labour? I gave my definition *à la* Rigby: "When the long axis of the child's body corresponds with that of the uterus the child (provided the passages are normal) can be born in that position. It matters little, as far as the labour is concerned, which extremity of the child presents so long as this is the case. ..... The natural presentations consist of two classes—those where the cephalic and those where the pelvic end of the child presents."[1] I was taken sharply to task by the two examiners and asked if I did not know the greater fatality in breech than in cephalic presentations. I stated that I did, giving the mortality in the two classes. These old worthies have long since passed to their rest, but they were highly indignant at me for stating that a breech presentation was a natural one so far as the labour was concerned, and they had evidently never heard of Rigby's views.

I am, Sirs, yours faithfully,

Feb. 14th, 1896. M.D.

GONORRHŒA WITH PYREXIA AND CARDIAC SYMPTOMS.

To the Editors of THE LANCET.

SIRS,—Will any of your readers tell me if a case similar to the following has ever come under their care or observation? A sailor boy, complaining of little or nothing but a cold and having a temperature in the morning of 101·2° F.—which rose in the evening to 103·6°—on examining chest was found to have a distinct systolic murmur at the heart's apex and in the pulmonary area. Nothing abnormal was found in the lungs or elsewhere. Some five days afterwards, the temperature still remaining high, the murmur had completely gone; and some three days after this, the temperature falling to normal, a gonorrhœal discharge appeared for the first time. Can the gonorrhœal poison, which was apparently latent in the system, have given rise to the high temperature and the cardiac mischief which was so very evident, although so amazingly transient? The boy had always enjoyed most excellent health never having suffered from rheumatism or venereal disease, &c.—I am, Sirs, yours very truly,

March 9th, 1896. PRACTITIONER.

"THE MEDICAL LICENSING BODIES AND MEDICAL AID ASSOCIATIONS."

To the Editors of THE LANCET.

SIRS,—Under the above heading on page 640 of your issue of March 7th the resolution of the College referred to, *plus* the fact that at the Ethical Section during the meeting of the British Medical Association last August a gentleman (who was pointed out to me as the President of the Royal College of Physicians, Dublin, by the gentlemen sitting on my right and left) did most undoubtedly state that those seeking the diploma of the Royal College of Physicians of Ireland were required to declare that they "would not accept office in any medical aid association," &c., were the causes of my resignation. It is quite possible the resolution referred to may be only a verbal declaration, but as to the facts I name I am quite certain, and no doubt others present at the Ethical Section will recall this circumstance to mind now that attention is directed to it. Anyhow, if the resolutions of the Dublin College of Physicians and the English College of Surgeons are useless as they stand the sooner they become by-laws which can be made operative the better, for most men will not give up an appointment such as I held in order to let "Tom, Dick, or Harry" step into their places in a few hours' time. I am, Sirs, yours truly,

March 9th, 1896. L.K.Q.C.P.I., &c.

[1] Vide Rigby, p. 124.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Manchester Children's Hospital: a New Seaside Home.

THE annual meeting of the subscribers to this very important charity was held in the town hall on the 29th ult. It has an out-patient department in Gartside-street and a hospital for in-patients at Pendlebury. At the former 11,547 new patients were registered last year, as against 10,007 in 1894, an increase of 1540, illustrating the rapid extension of the work of almost all our medical charities; 1051 cases were transfered to the hospital, as against 955 in 1894, and 844, as compared with 807 in 1894, were made home patients. The report drew attention to the want of a proper milk-supply, which was deplored by the medical staff; and in the medical report reference is made to the abuses connected with infant life insurance. "It was satisfactory to notice that the Licensed Victuallers' Association had taken up the question of paying part of the insurance money in drink, and the board trusted that this crying abuse would before long be done away with." There is the usual expression of regret on part of the board, "that they must again report a deficiency of the income to meet the expenditure." The deficiency on the year is a little over £624, which, with that of last year, leaves an adverse balance of £1200. The report says: "There was an unfortunate impression abroad that the Manchester Children's Hospital was a wealthy institution. The tradition of the large amount raised by the bazaar some twenty-five years ago was still remembered, while it was forgotten that the sum then raised was spent in completing the buildings at Pendlebury, which almost doubled the annual expenditure, while the subscription list was in no way proportionately increased." The President, Sir William Agnew, has generously placed a considerable sum of money at the disposal of the board for providing a home at the seaside, and three acres of land near St. Annes have been bought for the purpose. After congratulating the subscribers on Sir William Agnew's gift the chairman said: "For years they had been told by Dr. Ashby that many children were being sent back to homes which were unhealthy, and where they would be ill-attended, instead of being further aided towards health by being sent to a convalescent home." He added the consolatory statement that there were certain legacies which would realise £9000 or £10,000, with which they proposed to endow the home, and it was expected that the increased expenditure would thus be practically covered. It is to be hoped that a cheerful response will be made to the anticipation of the chairman, who said he was sure that the Manchester public would make good any deficiency that might arise through the establishment of the new hospital.

Salford Sewerage Scheme.

This scheme again came under consideration at the meeting of the council on Wednesday last. The River Irwell Conservancy Committee recommended the Council to borrow £50,000 instead of £40,000, which was the sum previously decided on, for the purpose of carrying out the scheme, and a resolution to this effect was moved by the Deputy-Chairman. Dr. Quine moved an amendment referring the matter back to the committee which was seconded by the chairman of the committee, who was thus opposed to the action of his own committee, chiefly because he considered the cost would be more than £100,000 instead of half that sum, and he asked the council not to increase the ratepayers' burdens. The amendment was adopted, and Salford has still to wait—how long remains to be seen—for the proper treatment of its sewage. All this looks like playing with a very serious matter.

Owens College.

At the half-yearly meeting of the court of governors on Wednesday last, thirty-eight former students, the largest number hitherto appointed on a single occasion, were made associates of the college. Three were medical graduates, but the rest had taken degrees in arts or science, and of these nine were ladies, one of whom had taken the B.Sc., and the others the B.A. Vict. In the arts, science, and law department there are 586 students, of whom 108 are women; in the medical school there are 345, and in addition 329 students attend evening classes.

March 10th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Sub-Warden of the University of Durham.

THE Rev. Dr. A. Plummer, Master of University College, Durham, has been appointed Sub-Warden of the University by the Dean of Durham.

Appointment of Extern Examiners in the Faculty of Medicine of the University of Durham.

The following appointments have just been made: medicine, Dr. D. B. Lees, St. Mary's Hospital, London; surgery, Mr. T. P. Pick, St. George's Hospital, London; public health, Dr. T. E. Hill, medical officer of health for the county of Durham; physiology, Mr. D'Arcy Power, St. Bartholomew's Hospital, London; anatomy, Professor Thomson, Oxford; physics, Mr. V. A. Mundella, B.A. Cantab. The examinations for degrees in medicine, surgery, and hygiene will be commenced in the Medical College, Newcastle-upon-Tyne, on Monday, April 6th, and will be spread over a period of three weeks. On Saturday, April 18th, degrees will be conferred, and for this purpose a convocation of the University of Durham will be held in the city of Newcastle for the first time.

British Association for Child Study.

On Thursday last a meeting interested in this society was held in the College of Science at Newcastle, presided over by Principal Gurney, when it was resolved to form a branch of this society in Newcastle. Mr. Burdon explained the objects of the Society, and Professor T. Oliver was elected president. There is much room for improvement in the condition of some of the child-life in the neighbourhood, and if this society, by studying child life, should be able to bring about a better state of things it will be doing a useful work.

Large Decrease of Drunkenness in Newcastle.

From the report of the chief constable just issued, it appears that during the year 1895 there was a decrease of no less than 1846 in the number of cases of drunken persons brought before the bench by the police. In 1894 there was an increase of 703 cases over those in the year 1893. It is very difficult to account for these striking variations. The condition of trade does not satisfactorily account for the fluctuations. At the beginning of last year the mayor said Newcastle was, for its size, the most drunken city in England. This was indignantly denied, and the number of charges of drunkenness was accounted for by police activity. Can it be possible that the people are just about as drunken in Newcastle as usual and that the police have been somewhat less active during 1895?

Newcastle-upon-Tyne, March 10th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Proposed Wholesale Destruction of Houses in the Outer Hebrides.

THE Public Health Committee of the county of Inverness has had under consideration a communication from the Harris District Committee in which it was proposed to destroy by fire several hundreds of the "black houses" in the district because of their insanitary state. Dr. Ogilvie Grant, medical officer for the county, reported on the houses referred to. They were divided into three compartments with one outer door. The first compartment was used for housing the cattle, and the manure in it was allowed to accumulate for twelve months at a time. The adjoining compartment or kitchen was usually separated from the cattle compartment by a rudely constructed wooden partition, while in some there was no partition at all. The third or innermost compartment is the bedroom, containing two, four, or five beds, and in this room all the members of the family sleep irrespectively of age or sex. The walls of the houses have an outer and an inner stone facing, the space between being filled with earth. The water runs from the roof into the earthy centre and keeps it damp. The fire is in the centre of the room and there is no chimney, the smoke getting exit through door, window, and crevices. As a result of these insanitary conditions relapsing fever, typhus fever, typhoid fever, and phthisis are prevalent and the

infant mortality is high. The average age at which persons died in Harris during the past four years was thirty-nine years, while on a mainland parish of the county the average was fifty-nine years. Dr. Grant properly says that these houses are unfit for human habitation, and that the legal remedy under the Public Health Act is to close them up and turn the inmates out on the moors. For obvious reasons this course could not be followed, and he suggests that the people should be assisted by the Government in their laudable endeavour to improve their dwellings. The people in these houses are, it appears, most industrious and weave Harris tweeds, and all that is required is a grant of £4 to £8 per house. The number of houses which ought to be destroyed is between 200 and 300, and the district committee cannot undertake the expenses because of the burden of taxation for other purposes. A motion was carried to the effect that a deputation should wait upon the Secretary for Scotland to urge the necessity of doing something in the matter. The deputation includes Lochiel, The Mackintosh of Mackintosh, Mr. Baillie of Dochfour, M.P., and the county clerk. The main difficulty of the situation would be encountered after the wholesale disinfection by fire had been accomplished, for new houses would be needed by the dislodged inhabitants, and the expenditure of public funds to secure these would probably lead to protest, hence the determination to try what help can be obtained from Government.

The Quarryholes Hospital.

Leith has at last made terms with Edinburgh, and the Dean of Guild Court of Leith has sanctioned the erection of the hospital on condition that it shall be temporary and shall be used only for cholera patients. They also make terms about an incinerator and the height of a chimney.

Glasgow Royal Infirmary.

Dr. A. G. Auld has resigned his position as Assistant Physician to the Infirmary. Applications for the vacancy are to be made not later than March 26th.

The Fishery Board for Scotland.

The Secretary for Scotland has appointed Dr. T. Wemyss Fulton to be Scientific Superintendent under the Fishery Board for Scotland in terms of the Sea Fisheries Regulation (Scotland) Act, 1895.

Infectious Diseases Hospital for Lanarkshire.

The committees representing the Lower and Middle Wards of the county have agreed to the erection of a Joint Hospital for Infectious Diseases at Lightburn. The hospital is to contain sixty beds and there is to be a disinfecting station. The total estimated cost is £30,000.

Andersonian Naturalists' Society, Glasgow.

Mr. Malcolm Laurie, B.A., D.Sc., Professor of Zoology in St. Mungo's College, has been elected President of the Society for the Session 1896–97.

Lunacy Board for Scotland.

The applicants for the post of Deputy-Commissioner in Lunacy for Scotland, vacant by the death of Dr. Robert Lawson, include Dr. Hamilton Clelland Marr, deputy medical superintendent of the Barony Parochial Asylum, Glasgow; Dr. James Middlemas, Craigie House, Morningside Asylum, Edinburgh; Dr. John Batty Tuke, jun., Dr. Cameron, Dr. Macpherson, Dr. Rutherford, and Dr. Hotchkis. A salary of £600 is attached to the appointment.

Presentation to a Medical Man.

Dr. Kennedy, who during the past session has instructed in ambulance work the employés of the North British Railway engaged at Queen-street Station, has been presented with a handsome standard lamp in recognition of his services. The ambulance corps at this station was organised six years ago, and since its establishment has rendered valuable assistance in more than ninety cases.

March 10th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Irish Medical Men and the Army Examinations.

Now that the result of the election of a direct representative for Ireland on the General Medical Council has been discussed, and comment made on the extraordinary apathy of the provincial voters in neglecting to mark or return not less than one-quarter of the total number of stamped voting-papers supplied to them, interest has been revived in the army medical examinations and in the remarkable falling off in the number of candidates from Ireland. The two deputations which waited upon Lord Lansdowne from the Provost and Senior Fellows of the University of Dublin on the one hand, and from the President and Council of the Royal College of Surgeons in Ireland on the other, were well calculated to carry weight, both on account of the personality of the representatives and on account of the arguments which they had the honour of laying before the Secretary of State for War. The members of the first deputation consisted of Professor Cunningham, M.D. Edin., F.R.C.S. Irel., Professor of Anatomy at Trinity College, Dublin, and Examiner in Anatomy at the Universities of Dublin, London, Edinburgh, Oxford, &c., and Dr. C. B. Ball, the recently elected Regius Professor of Surgery at Dublin University. The second deputation included the President of the Royal College of Surgeons in Ireland, Sir W. Thornley Stoker; Mr. W. Thomson, the recently elected member of the General Medical Council; with Mr. W. Stoker and Mr. Wheeler, members of Council. The representatives of Dublin University were very careful, while stating their objections to the constitution of the present Board of Examiners for the entrance examination, to express their own conviction and the universal testimony of candidates from Dublin as to the absolute impartiality of the Board. They, however, respectfully suggested that instead of the present four, twelve examiners should be appointed, of whom six would be required to examine at each alternate examination, and that the examiners should be distributed as follows: London, four; Ireland, four; and Scotland, four. The deputation from the Irish College of Surgeons made a similar suggestion as to the distribution of examinerships, and referred to a protest which was made in 1893 by the then President and Council of the Irish College against the decision that examiners at the Army Medical Service examinations should be selected exclusively from the past or present examiners of the Royal Colleges of Physicians and Surgeons of England. They observed also that at the time when this remonstrance was made nearly one-half of the total number of medical officers in the army, 421 out of 891, held Irish diplomas. Other grievances of a less distinctly Irish character were mentioned by both deputations, after which they thanked Lord Lansdowne for the assurance that he had given that the various points brought forward would receive his most careful consideration.

The National Hospital for Consumption for Ireland.

A number of invitations have been sent to medical men and others to be present at the ceremony at Newcastle, county Wicklow, on March 19th, when the new hospital will be formally opened by the Marchioness of Zetland. The guests will be conveyed from Dublin by a special train to Newcastle, and thence by car to the grounds of the new institution.

Students' Conversazione at Queen's College, Belfast.

The annual conversazione organised by the students of Queen's College, Belfast, took place on March 6th, and it was without doubt one of the most brilliant and successful ever held. There was an immense attendance, including the Lady Mayoress (the Lord Mayor was obliged to be in London), the President, professors, the colonel and officers of the North Staffordshire Regiment, and representatives of all the professions in Belfast. The great examination room was transformed into a concert hall, where an excellent programme of music was given by a number of ladies and gentlemen and by a military band. In the council room Dr. W. A. Osborne demonstrated a number of physiological experiments; in the biological laboratory microscopical exhibits (kindly lent by Professor Symington, Dr. Lorrain Smith, and Dr. Drummond) were shown; while in the chemistry lecture hall Dr. Cecil Shaw had a crowded audience to see his illustrations of the new photography; and in the natural philosophy class-room experiments with sensitive water-jets were shown by Mr. W. B. Morton, M.A., and Mr. John Wylie, B.A. In the great hall a special feature of the evening was the very able performance by the students of a dramatic sketch entitled *The Biter Bit*, written specially for the occasion by Dr. W. A. Osborne (assistant to the Professor of Physiology). The piece consisted of three scenes, portraying phases of a medical student's life, and it was an unqualified success.

Portrush Sanitary Authority.

A letter has been received by the Portrush Town Commissioners from the Irish Local Government Board stating that the town will be separated from Coleraine rural sanitary district and will be constituted an urban sanitary district. This will be very much to the advantage of Portrush, which is the most fashionable seaside resort in Ulster and a favourite golfing district.

Fees to Medical Men in Crown Cases.

Some time ago Mr. Olpherts was asked by a constable, by the direction of the resident magistrate, to attend the petty sessions court in Downpatrick. He did so, remaining to the end of the case, but was not called to give evidence. On forwarding his account to the district inspector of police that functionary replied that he was unable to send the necessary certificate to the Crown solicitor for payment of the fee. Mr. Olpherts then communicated with the Irish Medical Association, who applied on his behalf to the Chief Secretary for his fee, with the result that the medical man has received intimation that the fee would be paid by the authorities. This is an important decision, as it establishes the principle that medical men are entitled to their fees in Crown cases for attending court when they may not have, as in this case, received a summons, but merely an intimation from a police constable by the direction of a magistrate.

The Magherafelt Workhouse.

The Local Government Board have sent a communication to the Magherafelt guardians trusting that they will remedy the defects in the sanitary arrangements in the workhouse. In reply the guardians say that night-chairs have been provided instead of the night-buckets in the infirmary and infirm wards, and that the present arrangements for bathing purposes are excellent, as there are already three fixed baths.

The Belfast Lunatic Asylum.

A prolonged discussion took place at the last monthly meeting, held on March 9th, of the governors of the Belfast Asylum in reference to the present inadequate accommodation, especially for female patients. Ultimately, a motion was carried for the appointment of a committee to consider the entire question.

The Battle of the Clubs at Cork.

The storm created by the statement of the *Cork Constitution* that the Medical Association had taken steps to prevent nurses from attending patients under the care of the new club medical officers has subsided as quickly as it was raised. The calm and dignified action of the medical men in treating the libellous charge as beneath their notice has produced the best effect, and it is quite evident that the fighting spirit of the clubs of twelve months ago has become seriously attenuated. The fact is a large number of club members have come to recognise that they have no reasonable complaint against the local faculty and that they have been talked into supporting the unjust claims of men with large incomes, who, if they could, would pay the artisan as illiberally as they are prepared to pay the medical practitioner. Some writers to the *Constitution* broadly hinted that the funds of the hospitals would suffer because of the fight between the medical men and the clubs. In other words, it was suggested that the clubs and their sympathisers would close their purse-strings for the purpose of punishing the medical men by preventing them from giving their unpaid services to a certain proportion of the poor who now frequent the hospitals. Some of the kind-hearted gentlemen living in opulence are deprived of the luxury of having medical attendance at the rates paid by labouring men, therefore to "punish" the medical men many of the poor of the city who cannot pay for medical attendance, nursing, or medicines are to be driven from the hospital doors. However, nearly every day brings some pleasing indications that the organised opposition of the clubs is gradually disintegrating. For instance, an entirely new club has been formed and application made to be allowed to elect a medical officer in accordance with the rules of the profession. Notice, too, has been given at a meeting of one of the oldest societies that a motion will be made next month that the present club medical officer be dismissed with a view, presumably, to the reinstatement of their former one. Discontent with the present state of affairs prevails in more than one direction, and time is steadily winning for the Cork Medical Association.

March 10th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Next Year's International Congress and the Languages to be employed thereat.

As the readers of THE LANCET already know, it has been decided that the only languages in which communications can be read at Moscow next year will be French, Russian, and German. Actuated doubtless by a spirit of *chauvinisme* from which medical men should be free, the exclusion of English has, I am sorry to say, been approved by several medical journals published in this city. One of them is, however, fain to admit the possibility of a concession being at the last moment made in favour of English, and the *Semaine Médicale* of the 4th inst. takes a very common-sense view of this preposterous attempt to taboo a tongue in favour of which all others will in all probability ultimately disappear. *International* Congress is surely a misnomer when the most important language spoken by human beings is ousted. Do our Russian *confrères* really mean to treat British and American practitioners as a *quantité négligeable*?

Foreign Medical Men in France.

A judgment of the Conseil d'État, which is of considerable practical interest to those of our countrymen who practise medicine on French territory in virtue of a simple permit granted by Government, is reported in *Le Temps* of the 7th inst. A Dr. R—— pursued his calling under this condition—viz., through an *autorisation* granted by the French Government according to the terms of the law of the 19th Ventôse, Year XI., such permit having of course been granted before the passing of the Medical Bill of Nov. 30th, 1892, which now regulates the practice of medicine within the French Republic. The existing law forbids the practice of medicine to any practitioner unprovided with the degree of M.D. of a French Faculty. By Article 28 of this law foreign practitioners provided with a permit were allowed to practise undisturbed. On Jan. 15th, 1894, Dr. R——'s permit was, nevertheless, withdrawn by the Minister of Public Instruction for reasons not stated. Dr. R—— appealed to the Conseil d'État. The council rejected the appeal and ruled that permits granted under the law of the 19th Ventôse were revocable by the Government, should it see fit to withdraw them. The majority of British medical men established in France are, I believe, *officiers de santé*, and as such they have nothing to fear, although that diploma has since 1892 become a thing of the past. But there is probably a minority liable, like the unfortunate Dr. R——, to see his *clientèle* destroyed at one swoop by a slip of paper signed by the Minister. According to the last census there were 2922 medical men in Paris, 521 of these being foreigners. Classified according to age and nationality these 2922 practitioners are thus composed: between twenty and thirty-nine years of age, 1470, of whom 26 per cent. are foreigners; between forty and fifty-nine years of age, 1067, of whom 11 per cent. are foreigners; above sixty, 385, of whom 7 per cent. are foreigners. Foreign medical men are particularly numerous in the fifth and sixth arrondissements (Latin Quarter), where they exist in the proportion of 47 per cent. But most of these are young men who, coming to Paris for study, do not practise. The remainder of the foreign element is, as might be expected, to be found in the rich districts. The number of foreigners who actually practise is about 250.

The Creation of New Universities in France.

The Chamber of Deputies has just passed unanimously a Universities Bill drafted under the Ribot Ministry by M. Poincaré, then Minister of Public Instruction. Five years ago a similar Bill was rejected by the Senate, the reason being that the Upper House would not agree to the choice of towns in which the new universities were, according to the Lower House, to be located. In the Bill just passed—and its acceptance by the Senate is said to be a foregone conclusion—all existing Faculties will take the title and privileges of universities. The days of the cumbrous University of France created by Napoleon are then probably numbered, and the decentralising system, which is proving such a success in England, will have a trial. A few pushing provincial universities would, by their success, do more to modernise the Paris school than tons of talk in the journals,

healthy competition being in educational, as in commercial, enterprise the best of all incentives to improvement.

Madame Pasteur.

By a decree published in the *Journal Officiel* the annual pension of 25,000 fr. voted on Aug. 2nd, 1883, by Parliament for the late regretted M. Pasteur is settled on his widow. The scientific world will rejoice at this decision.

The Sanitary Council of Rome has appointed a committee to receive subscriptions towards the monument to Pasteur to be erected on a site in Paris. Professor Baccelli, until the last few days Italian Minister of Public Instruction, has accepted the presidency of the committee, Professor Pagliari being secretary.

March 10th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

An Antitoxin for Enteric Fever.

PROFESSOR BENMER and Professor Peiper of Greifswald have produced an antitoxin for enteric fever from the sheep after the method used by Professor Behring for his diphtheria antitoxin. The experiments are not yet finished and particulars are not published, but Dr. Borger, assistant physician to the medical clinic of the University of Greifswald, has issued a preliminary notice, giving an account of the results hitherto obtained. Twelve patients were treated by the antitoxin; in the first cases from twenty to thirty grammes (from three-quarters of an ounce to an ounce) were injected, but as no effect was produced the amount used on the next occasion was from fifty-five to two hundred grammes (from two ounces to seven ounces). All the patients were in a somewhat advanced stage of the illness—namely, from the seventh to the sixteenth day. When the antitoxin was used on the tenth day and later no effect was observable. In one case the treatment was begun at a relatively early period—namely, on the eighth day—and the very large dose of two hundred grammes (= seven ounces) was employed, but death nevertheless ensued. In another case one hundred and fifty-five grammes (= five and a half ounces) were given, but the patient had a serious relapse lasting from the twenty-eighth till the forty-second day. Only four of the remaining cases showed a satisfactory result, the fever having ceased on the eleventh, seventeenth, and eighteenth days respectively. In some instances a second injection was performed. These results are not very encouraging; no injurious effects were perceptible, but the antitoxin must be greatly improved to become really useful. The principal requirements, however, are that the clinical and bacteriological diagnosis of enteric fever should be made at an earlier period than is practicable just now, and that patients should come into the hospitals before their illness is far advanced.

Medical and Surgical Fees in Prussia.

The question of fees is as a rule left to be adjusted between the patient and the medical practitioner, and if an arrangement has been made before the beginning of the attendance the amount agreed upon must be paid even though it be exceedingly high. But if nothing has been arranged beforehand, and if the patient then declines to recompense his medical attendant, he is only bound to pay the sum officially settled by the so-called "Medicinal-Taxe." The Medicinal-Taxe now existing dates from 1815 and is not at all adapted to the present state of medical practice. Of course, none of the operations introduced since the early part of this century are mentioned in it, and for this reason the law courts are often in a dilemma when an action for fees comes before them. Various German States—such as Saxony, Bavaria, &c.—have recently modified their Medicinal-Taxe, and a new one will now be drawn up for Prussia in accordance with the wishes of the official representatives of the profession. A Bill for this purpose has already been brought before the Upper House of the Prussian Parliament and has been accepted there without discussion, and the Lower House will undoubtedly follow this example. The new scale of fees has 163 clauses, each clause assigning a minimum and a maximum fee, according to the financial position of the patient and the other circumstances of the case. For instance, from two marks to twenty marks (2*s.* to £1) may be charged for a first visit to the patient's residence, and from one mark to ten marks for advice at the medical man's residence. Visits between 9 P.M. and 7 A.M. are rated at three times these amounts. For distant visits the loss of time entails an extra fee, and the practitioner's travelling expenses must be paid. The list of surgical operations is very lengthy. The fees vary from two marks for dressing a small wound to five hundred marks (£25) for laparotomy, lithotomy, hysterectomy, &c. The new scale is undoubtedly better than the old-fashioned one of 1815, but it remains a question whether such an enactment is necessary. Many practitioners are of opinion that the official regulation of medical fees is no more needed in Germany than in the countries where it does not exist. Actions for the recovery of medical fees are relatively rare in Germany, and when they are brought an expert would not require an official scale to guide him in determining whether the amount claimed is reasonable or otherwise.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Cholera Shadows.

FROM Alexandria the Italian Consul has apprised the sanitary office here that cholera has appeared in that city, that it shows a tendency to increase, and that the later cases are at once the more typical and the more aggravated. Stringent regulations are in consequence imposed at all the seaports throughout the kingdom to prevent the malady effecting a foothold, and special precautions are being taken to keep the troopships plying between Italy and the Red Sea exempt from contagion. On board these vessels the most rigorous inspections are being made, while the Minister of the Interior has prohibited even the postal steamers which happen to be engaged in the transport service from touching at Alexandria. Till further notice these latter will call only at Port Said.

An Interesting Ceremony.

The death of Dr. Luigi Galassi, Professor of Pathology in our university, has already been recorded in THE LANCET, and in commemoration of him a special meeting was held on March 1st by the Accademia Medica, of which he was for several years President. There was a large attendance not only of the medical faculty, but also of the students, as well as of the lay public. The proceedings were opened by Professor Toscani, Vice-President of the Accademia, and he was effectively followed by Dr. Rossoni (Professor of Clinical Medicine), Dr. Parisotti (Ophthalmic Professor), and Dr. Campana (who holds the chair of Dermatology and Syphilitic Disease). The commemoration will not, however, be confined to academic *éloges* however eloquent; but some more permanent memorial is in contemplation to a consultant and teacher who was for so many years an ornament to the Roman school and a mainstay of its prosperity.

The Disaster in Abyssinia.

"Varus, Varus, give me back my legions"—the words of anguish wrung from the Emperor Augustus on the annihilation of the Roman army in the Teutoburg Forest—must have recurred to the Italian people on learning Baratieri's total defeat at Abba Carima on Sunday last. The meagre details doled out by the Roman War Office are so far consistent with information from other sources that Italy may now resign herself to the fact that she has sustained the severest reverse yet inflicted by an African on a European force. The moral effect of the victory will stimulate the savage or semi-savage races of the Dark Continent to fanatical resentment against European settlers and enhance a hundredfold the difficulties already grave enough of extending or even holding the several "spheres of influence." These effects, in Ethiopia at least, will take some time to obliterate, if, indeed, Italy is the power to undertake it. The rainy season is imminent in the Eritrea, and Baldissera, Baratieri's successor, even if he succeeds in restoring discipline and *morale* to the white troops and loyalty to the native ones, will be unable to take the field before the late autumn. Altogether the situation is as sombre as need be for Italy, which country finds the "Dark" Continent to be darker in a moral that even in a physical sense, and whose "way out of it" is a puzzle which has cost her much, and is likely to cost her more, to solve.

An Army Surgeon on the Situation.

Among the publications called forth by the Italian occupation and its recent reverses there are two which I can safely recommend to your readers, "La Guerra in Africa" by Signor Vico Mantegazza, a kinsman of the distinguished Professor of Anthropology in the Istituto di Studi Superiori in Florence, and "L'Esercito Abissino: Usi e Costumi" by Dr. Luigi Sambon. The former gives a succinct account of Italy's colonial policy on the Red Sea and the various steps by which she has pushed her way inland. The latter transports the reader to the military side of the subject and by pen and pencil puts him in possession of the difficulties hitherto overcome or yet awaiting their solution. Dr. Sambon has already laid the profession under considerable obligations by his bright and instructive comments on the hygiene of the Italian army in quarters or in camp. His present publication is made yet more attractive by spirited illustrations engraved from the original drawings of Dalbono and Terzi.

King Menelik and the Red Cross.

One fact may be culled from these publications and that is that the King of Shoa is very far from being a despicable antagonist. All through the later incidents of the campaign he has shown a magnanimity which more pretentious potentates would do well to imitate. He has treated his white prisoners humanely and well and afforded every facility for the effective care and cure of the wounded. He has applied, it is announced, to the headquarters of the Red Cross in Switzerland for the admission of Abyssinia into that international organisation; and, indeed, his whole conduct before and after his latest victory has been quite in keeping with that Christianity—primitive no doubt, but genuine—which is his hereditary religion. He is still, I understand, open to a pacific *modus vivendi* with Italy, whose Red Sea colony met with no opposition on his part. Indeed, he was favourable to the so-called "Colonia Eritrea" as long as it kept within its originally prescribed limits. Not till the fatal forward policy of Crispi brought Italian troops to Cassala and the Tigré did he head the movement he has hitherto conducted so skilfully of "Abyssinia for the Abyssinians."

The Health of the Pope.

Not a little alarm was felt on Thursday last when it became known that, doubtless due to the exertions of the previous days, His Holiness Leo XIII. had had a fainting fit of nearly half an hour's duration and that it was well on into the afternoon before his body physician, Dr. Lapponi, who had been in attendance since morning, was able to leave the Vatican. The improvement, however, was very marked in the evening, and to-day, I am assured, His Holiness is in his usual health. But with the fatigues incident to Easter-tide now approaching the utmost vigilance will be required to obviate a recurrence of these attacks of syncope which, in so typical a sufferer from senile anæmia, are fraught with imminent danger.

March 7th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council, held on the 12th inst., the President, Mr. Christopher Heath, being in the chair, the consideration of the question of the direct representation of the Members on the Council was resumed. After much discussion it was resolved: "That as the members of this Council represent the body corporate of this Royal College, and consequently its Members as well as its Fellows, it is the opinion of this Council that no further representation of the Members is desirable."

A letter was read of the 13th ult. from Dr. Liveing reporting that the Royal College of Physicians of London, at a special meeting held on that day, had re-elected Dr. G. Sims Woodhead Director of the Laboratories for another year, and had adopted, subject to the approval of this College, the following resolutions in reference to the revised regulations for the five years' curriculum, viz.:—

"1. That to Paragraph 6 at the head of page 6 the words 'after passing the second examination' be added, so that it may read: '6. Of having attended at a recognised hospital with a medical school after passing the second examination.'"

"2. That 'Pharmacology' as a separate subject be omitted from the Third or Final Examination, and the synopsis headed 'Pharmacology' from the regulations."

"3. That the alterations necessary to bring the regulations into accord with the above resolutions be referred to the Committee of Management, and that, if the Royal College of Surgeons agree on their part, the regulations be issued."

The motion that the proposed alterations be made was agreed to, and it was referred to the Committee of Management to revise the regulations in accordance therewith and to issue them.

Medical News.

THE *Macclesfield Courier and Herald* announces the appointment of Mr. J. L. Rushton, M.D., and Mr. Charles Averill, M.D., as representatives of the honorary medical staff on the governing body of the Macclesfield General Infirmary.

THE UNIVERSAL COOKERY AND FOOD EXHIBITION.—The annual Cookery and Food Exhibition will be held at the Imperial Institute from April 27th to May 2nd. The object of the exhibition is to promote and extend a better knowledge of the various substances used as food, and the best and most economical ways of cooking the same. Prizes are offered for competition.

FOOTBALL CASUALTIES.—During a match at Shepherd's Bush on the 7th inst. between the Stanley and St. Mary's College teams a player fractured his clavicle and was removed to the Cottage Hospital at Brook-green. At Liskeard on the same day in a match, the Liskeard Club against the Mevagissey team, one of the Liskeard half-backs sustained a compound fracture of his leg.—While playing in a match at Kettering on the 9th inst., between the Luton and Kettering teams the Kettering centre half-back fractured his leg and sustained other serious injuries.

LITERARY INTELLIGENCE.—Under the title "Mittheilungen aus den Grenzgebieten der Medizin und Chirurgie" ("Reports from the Borderlands of Medicine and Surgery") there has appeared the first number of a periodical (Jena: G. Fischer; subscription 25*s.* per vol.) edited by Dr. J. Mikulicz of Breslau and Dr. B. Naunyn of Strassburg. It is planned on the same lines as the now well-established pathological "Beiträge" edited by Professor Ziegler—that is to say, it is to consist of clinical monographs from representative schools in Germany. This first number opens with an article on Pneumotomy by Professor Quincke of Kiel, who contributes many fresh cases to those already published, of which also summaries are given. They are grouped under the heads of: 1. Acute Cases: (*a*) Simple Abscesses; and (*b*) Acute Gangrene and Gangrenous Abscesses 2. Chronic Cases: (*a*) Simple Abscesses and Bronchiectases; and (*b*) Chronic Putrid Cases. 3. Putrid Processes from Foreign Bodies. Out of a collective number of 54 such cases in which pneumotomy was resorted to there were 20 deaths, 20 recoveries, 3 cases without result, and 11 incomplete results. Of these 17 cases were in Professor Quincke's clinic (5 deaths, 5 recoveries, 1 no result, and 6 incomplete results). Naturally the cured cases are to be found in larger proportion amongst the acute than amongst the chronic series (65 per cent. to 20 per cent.). Professor Bruns of Tübingen writes on the present position of the Radical Treatment of Hypertrophy of the Prostate, with especial reference to castration; and Professor Naunyn discusses at length the diagnosis and treatment of ileus, in which the importance of early surgical intervention is prominently shown. Dr. Trantenroth, assistant physician to Dr. Schuchardt's surgical clinic at Stettin, records a case in which severe hæmaturia to a dangerous degree was the earliest symptom of a commencing renal tuberculosis. The appearance of a journal such as this testifies to the part now played by surgery in the treatment of visceral diseases, and the list of names of those under whose auspices it is issued comprises many of the leading physicians and surgeons in Germany.—The three lectures delivered in February at the Royal College of Surgeons of England by Professor Leonard Hill on the Cerebral Circulation and Cerebral Pressure will shortly appear in book form, largely illustrated. Messrs. J. and A. Churchill are to be the publishers.

MIDDLESEX HOSPITAL.—At a largely attended meeting of the Quarterly Court of Governors held on Feb. 27th at the Middlesex Hospital there were present, amongst others, Sir Lionel M. Swinnerton Pilkington, Bart. (in the chair), Sir Ralph Thompson, K.C.B., Mr. Francis Hoare (treasurer) and Mr. G. J Majoribanks (treasurer), Colonel Smith, the Hon. G. W. Spencer Lyttelton, C.B , Colonel the Hon. C. G. Gathorne Hardy, Lieutenant-Colonel T. Lambert Mears, Rev. Canon Acheson, Mr. S. B. Bancroft, Mr. Griffith Jarrett, Dr. Cayley, Dr. Pringle, and Dr. Wynter. The annual report for the year 1895 was unanimously adopted. Sir Ralph Thompson, in his speech, drew attention to the present financial state of the hospital, which he characterised as being very satisfactory, and announced that their Royal Highnesses the Duke and Duchess of York would attend a *fête* on July 1st, to be given for the benefit of the funds of the new convalescent home to mark the 150th anniversary of the institution of the hospital, which dates from the year 1745, and asked all governors present to induce their friends to attend on that day. Mr. Griffith Jarrett gave a brief *résumé* of the various alterations and improvements effected in the hospital during the last twenty years. The court then proceeded to re-elect the treasurers, auditors, bankers, and retiring members of the weekly board, various formal business was transacted, and a vote of thanks to the chairman adjourned the court.

DIPHTHERIA IN LONDON.—The data to hand respecting the behaviour of diphtheria in London in the four-weekly period ended Feb. 22nd, show a slight increase in the amount of the disease as compared with the four weeks next preceding. Thus in the four weeks ended on Jan. 25th there were 988 notified cases of diphtheria in the county of London every one of the 43 sanitary areas being invaded. Fifty cases and upwards were notified in each of 6 districts, with an aggregate of 358, and as regards London as a whole, the weekly average number of notifications was 247. The deaths registered in the period were 224, or 56 weekly, and the per case mortality was 22·7 per cent. In the four weeks ended on Feb. 22nd the notified cases increased to 1054, occurring in 42 of the 43 sanitary areas, and averaging 263 notifications weekly. Only 4 districts had 50 cases and upwards, with a total in the 4 of 307 notifications. The aggregate of registered deaths decreased by 7 to 217, a weekly average of 54; and the per case mortality was at the lowered rate of 20·6 per cent. Thus, with a small rise in amount of diphtheria, we find a decline in the mortality rate. In the two completed weeks ended March 7th the deaths have been 48 and 46 respectively, and on Saturday last 700 patients remained in hospital suffering from the disease, as compared with 706 on the corresponding Saturday in February.

THE DIFFUSION OF SMALL-POX.—The notified cases of small-pox in London in the four-weekly period ended Feb. 22nd were 46 in number, and occurred in seventeen of the forty-three sanitary areas of the metropolis. This yields a weekly average of 11, as compared with a weekly average of 10 in the like period ended Jan. 25th. Small-pox, therefore, in the first eight weeks of this present year has maintained a quiescent state. The slight increase in the later period as regards number of cases notified is balanced by the fact that the area covered by the disease was smaller, nineteen districts being involved in the January period, as against seventeen in the February. During the later period, the four weeks ended Feb. 22nd, the four districts of Greenwich, Clerkenwell, Lambeth and Rotherhithe accounted for 27 out of the 46 notifications. In the two weeks ended March 7th there has been a wide difference in the prevalence of small-pox in London, as judged by the admissions to hospital, last week showing 13 such admissions against only 1 in the week immediately preceding. There were 2 deaths registered from the disease in London last week, the first for seven weeks. These fatal cases belonged to Lambeth and Greenwich respectively, the one being in an unvaccinated infant and the other in an infant concerning whose state as to vaccination no information is forthcoming. On Saturday last there remained on the hospital ships at Long Reach 52 patients, as compared with 60, 58, and 51 on the three preceding Saturdays. At Gloucester the seriousness of the small-pox prevalence through which that city is passing seems to continue, the authorities of the town and surrounding country having had to deal with upwards of 100 cases of the disease in the past month. No little alarm appears to have been created in the minds of residents of neighbouring places at the condition of the public health in this matter, and Gloucester is, to some extent at least, avoided by the country folk. In the Midland counties, a few cases have been recorded. A further case has arisen at Troon, near Camborne, in Cornwall, the patient being a brother of a former sufferer who was attacked on his return from South Africa. The difficulties of isolating the patient in his home circumstances have led to steps being taken to that end by the local authority. One additional case of small-pox occurred in a block of the Cardiff Workhouse, necessitating the placing of the infected block in quarantine for fifteen days. Two suspected cases have turned out not to be small-pox. Another case has been reported at Newport and the leave of absence of inmates of the workhouse has in consequence been curtailed for a fortnight. There has been another case at Bridgend during the week, and 2 additional cases have occurred at the common lodging-house at Blackwood, in Monmouthshire, where 15 tramps have been in quarantine for some five weeks. The City of Dublin is not yet quite rid of small-pox, since 5 cases arose in the week ended Feb. 29th, leaving at the close of the week 7 patients in hospital, as against 4 on the preceding Saturday.

ROYAL FREE HOSPITAL.—The annual report of the Royal Free Hospital which has recently been issued gives an account of the recent additions which have been made to the hospital buildings. These include improved accommodation for the treatment of casualty cases and rooms for the resident medical officers, and also for the servants of the hospital. It is satisfactory that the new buildings are almost completely paid for, only about £2000 being still required. Legacies are a most uncertain source of income and it is always a matter for regret when a hospital has to depend to any great extent on such bequests. In the case of this hospital, unfortunately, out of a total income of £9142 nearly half is derived from this source—viz., £3921. A noteworthy feature in the management of the Royal Free Hospital is the systematic inquiry which is made into the pecuniary circumstances of the patients who apply for out-patient treatment. This has been carried out for some years by the ordinary officials of the institution and with good effect, but last year the board, acting in conjunction with the Charity Organisation Society, appointed an officer to investigate carefully the circumstances of the out-patients. The result is beneficial in several ways: those who can afford to pay for medical treatment are excluded (but it is found that these form only a small proportion of the whole), and those who require help in addition to treatment are assisted, and this is rendered much more easy by the fact that the officer is in close connexion with the Charity Organisation Society. If careful inquiries such as these were made at all hospitals the difficult problem of out-patients would be in some measure solved.

Parliamentary Intelligence.

HOUSE OF LORDS.

MONDAY, MARCH 9TH.

The Protection of Infant Life.

AT this sitting there was a short debate on the motion for the second reading of the Infant Life Protection Bill.

The Earl of Denbigh explained the history and the contents of the Bill. In 1872, in consequence of the terrible evils exposed in connexion with baby-farming, an Act was passed making it illegal for any person to take more than one infant under twelve months for hire and reward except in houses approved and liable to inspection by the local authorities. In the working of this Act it was found that there were great facilities for evasion, and that it was practically useless. In 1890 an amendment to the Bill was introduced into the House of Commons and referred to a Select Committee, but it was subsequently dropped. Then the London County Council took up the matter, and a Bill identical with the present one was introduced by Lord Onslow, but on account of the dissolution did not reach a second reading. The inspectors had found that the people engaged in the abominable traffic of baby-farming fully availed themselves of the loopholes the Act contained and that it did not reach more than 5 or 10 per cent. of the children. In the twelve months 1894-95 only thirty-eight registered houses existed in the metropolis, and they were returned as containing 121 infants under twelve months. Consequently the Act was only operative in London for these 121 children, and as soon as they were a year old it ceased to protect them. During the six years from 1889 to 1895 4127 cases were investigated; 2372 children under five years of age were found to be kept at unregistered houses, and to only 100 of these the Act applied. Of the total 323 died, 283 being under one year. No

fewer than 135 inquests were held, and in 30 cases death was found to have been accelerated by improper feeding and surroundings. In 5 cases nurses were committed for manslaughter or wilful neglect, 3 were convicted and 2 acquitted, and 2 more were summarily convicted. During the same period there were 189 registered houses in which 836 infants had been received. The deaths numbered 107, and 6 inquests were held, but only one unsatisfactory verdict was returned. Many judges and juries had recommended the amendment of the old Act. The present Bill extended its scope so as to include all children up to five years of age. Other clauses enabled the inspectors to trace children who had been removed from registered houses and to give additional powers to the inspectors to enable them to obtain admission to houses where they had every reason to believe children were improperly kept.

The Marquis of Salisbury feared that the provisions contained in the second clause might have a very injurious and oppressive effect, and though they might save some children from ill-treatment, they might, on the other hand, prevent other children from being succoured by those who were inclined to take pity on them and prevent them from perishing from want. It was common in this country for those who had no families to adopt or to receive a child from those who had large families gratuitously or for a small charge, and under this Bill such persons would require to be registered and have their homes inspected. But people did not like being registered or having their homes inspected by a Government official by day or night, and the result would be that such people would not receive or adopt children under the circumstances, and many beneficent transactions would thus be prevented. He merely entered this caveat lest it should be understood that the Government would support all the clauses of the Bill.

After some further remarks by the Earl of Denbigh and a short speech by the Lord Chancellor, the Bill was read a second time and referred to a Select Committee.

HOUSE OF COMMONS.

THURSDAY, MARCH 5TH.

The Vaccination Commission.

Sir Matthew White Ridley, in reply to Mr. Heywood-Johnstone, said he was informed that the Royal Commission on Vaccination last sat to take evidence on Dec. 13th, 1893, but that since then they had procured and considered much valuable written evidence. He was also informed that they had held twelve meetings for the consideration of their report besides informal meetings of various members for the elucidation of certain points before their consideration by the general body of the Commissioners. The time of many of the Commissioners was largely occupied by other important duties. They had given their labour ungrudgingly to the work of the Commission and they were most earnestly desirous to bring their labours to a close.

MONDAY, MARCH 9TH.

Inveterate Misdemeanants and Inebriates.

The Lord Advocate informed Mr. Pickersgill that the question as to how far the recommendations of the Departmental Committee on Inveterate Misdemeanants and Inebriates can be given effect to is at present engaging the consideration of the Secretary for Scotland in conjunction with the Home Secretary.

Condition of Barracks in Dublin.

Mr. Brodrick, in reply to a question, said that the Richmond Barracks, Dublin, were supplied, like the population of Dublin, with Vartry water for drinking purposes, and its quality was satisfactory. For flushing drains canal water was used until recently, but this had been discontinued. No defects in the recent supply had occurred beyond the fact that one day last week the water was shut off for a few hours while a burst main was under repair.

TUESDAY, MARCH 10TH.

The Care of Pauper Lunatics.

Mr. Brookfield asked the President of the Local Government Board whether any representations had reached him in favour of extending the Exchequer contribution of 4s. per head in respect of pauper lunatics in county asylums to the maintenance of pauper lunatics returned to workhouse wards after curative treatment, and whether he would carefully consider the feasibility of making the necessary alteration in the law with this object in view.—Mr. Chaplin replied: I have received a large number of communications in favour of a grant being made by the county councils in respect of certain classes of pauper lunatics maintained in workhouses, and the subject is receiving my consideration.

IN COMMITTEE.

Food Products Adulteration.

The Select Committee of the House of Commons on the Adulteration of Food Products met on Tuesday, March 10th, for the examination of witnesses. The Committee as reconstituted consists of Mr. T. W. Russell (chairman), Captain Bagot, Mr. Bolitho, Mr. Causton, Mr. Channing, Mr. Colston, Mr. Fry, Mr. Jeffreys, Mr. Kearley, Mr. Kilbride, Mr Lambert, Sir John Leng, Mr. P. A. McHugh, Mr. Newdigate, Mr. Nicol, Mr. Herbert Roberts, Sir Mark Stewart, Mr. Willox, and Mr. Yerburgh.

Dr. Otto Hehner, on behalf of the Society of Public Analysts, said he had had considerable experience of the working and effect of the Food Acts, and he said without hesitation that they had been a great benefit to the public. Forms of adulteration which were common when the Food Acts came into force, and were often of a most injurious nature, had since quite disappeared; but the Sale of Food and Drugs Act was capable of considerable amendment. When the Act was being considered in Parliament the word "adulteration" was struck out, and the impression had been given that the practices to which the word was formerly applied were comparatively inoffensive. In his opinion it was exceedingly desirable that the word should be re-inserted. The working of the Act had shown that the present interpretation of the term "food" was far too narrow, and that practically it excluded a number of articles that enter into food. According to this interpretation food included every article used for food or drink by man other than drugs and water. No one could pretend that pepper, or mustard, or spices, were taken for food, and it had been held by the courts that baking powder which enters into food was not an article which came within the operations of the Sale of Food and Drugs Act. It therefore came about that the vendor could sell baking powder which contained alum, whilst the baker who put it into his bread could be punished. The definition which the Society of Public Analysts suggested was that the term food should include every article of food and drink used by man other than drugs and water, and every other article intended to enter into or be used in the preparation of food or flavouring matters and condiments. The Society desired to see heavier fines imposed for offences against the Act. The profits of adulteration were so great that the fines at present imposed had no deterrent effect upon offenders; while, on the other hand, they discouraged prosecutions. The state of the law as to the use of preservatives opened the door to a great many trade malpractices, for it left the vendor free to add anything to food so long as the added matter was not positively poisonous. Other countries had legislated against the use of preservatives—France, for instance, prohibiting it in the case of food made for home consumption—and he thought there should be legislation in this country. The labelling clause in the Act afforded the very widest protection to the vendor, but it was very indefinite and unsatisfactory to the purchaser. The printing on a label might be very "distinct and legible" when attention was called to it, but it might be lost in a mass of other printing. It might be placed in an obscure corner or in an unconspicuous position, as in the case of a Swiss milk label where the word "skim" was printed in the middle of a picture. In his opinion it ought to be enacted that a notice should be in characters more prominent than any others on the label. He would also have mixtures properly described—as, for instance, "coffee mixture," "cocoa mixture," and "mustard mixture"—and he would have the relative proportions approximately stated on the label. It was true, of course, that the condition of articles changed from natural causes: lime water, for instance, might lose its lime and become water; but it was the duty of a chemist to see that he supplied the right article, just as it was the duty of a butcher to see that his meat was sound. The whole subject of drugs was, however, in a chaotic state, and although we had no standard of drugs it was most urgently wanted. The standard he thought should be applied by the law to all drugs was the standard of the British Pharmacopœia. It was possible that exception might be necessary in some cases, but these could be dealt with without serious difficulty. The definition of analyst was vague and unsatisfactory. The Act spoke of necessary knowledge, skill, and experience; but it was left to the local authority to determine whether the applicant for their appointment possessed the "necessary knowledge, skill, and experience," and the person who got together the best array of testimonials usually had the best chance of success in the competition. The appointment was not valid until the Local Government Board approved it, but the Board seldom interfered unless it received representation from the Society of Public Analysts or the Institute of Chemistry of Great Britain and Ireland. When the Act of 1875 compelling local authorities to appoint analysts was passed a great many men had to be appointed who did not possess ideal qualifications. Many of them had only medical knowledge. Broadly speaking, however, that state of things had ceased to exist. At the same time it happened from time to time that the choice of a local authority fell upon a person without special chemical knowledge. A medical officer of health, who might be highly qualified for his particular medical functions, was compelled to join to his work the functions of public analyst. He was not in a position to decline, for if he did he would lose his appointment as medical officer of health. The Institute of Chemistry comprised every chemist of consequence in this country; almost every public analyst was a member; and its membership could only be obtained after a certain course of study analogous to that of the medical and other professions. The suggestion he made was that in future no public analyst should be appointed unless he was a Fellow of the Institute of Chemistry, and in addition had passed through an examination specially to be instituted by the Institute in the analysis of food, drinks, and drugs. Another suggestion he had to put forward was that there should be a provision compelling local authorities to put the Act in operation. The Act of 1875 compelled local authorities to appoint analysts, but did not compel them to put the Act in operation, and time after time the Local Government Board in their annual report had called attention to the importance of the subject. Experience showed most conclusively that adulteration had diminished according to the activity of the authorities in carrying out the Act, and he was disposed to take the figure mentioned by the Local Government Board, and say that there should at least be one sample taken for every 1000 of the population. If the local authority neglected to have this done, then he would have the Local Government Board interfere. He then referred to the difficulties and differences which have arisen between public analysts and the authorities of Somerset House in cases of appeal to the latter, and recommended the appointment of a strong board of referees to settle all disputes arising out of the working of the Adulteration Acts.

When the Committee adjourned Dr. Hehner had not concluded his evidence. He will not be called again until Tuesday, March 17th.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ADAMS, J. D., M.D. St. And., M.R.C.S., has been reappointed Medical Officer of Health by the Yeovil District Council.

AHERNE, P. L., M.B., B.Ch. Irel., has been appointed Medical Officer to the Milford Dispensary District, co. Cork.

ASPINALL, SAM, L.R.C.P., L.R.C.S. Edin., has been appointed Surgeon to the Erdington Dispensary.

BAGSHAWE, ARTHUR G., M.B., B.C. Camb., M.R.C.S., L.R.C.P. Lond., has been appointed House Physician to the Great Northern Central Hospital.

BARNES, GEO., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer by the Chard Town Council.

BLACKER, GEORGE FRANCIS, M.D. Lond., B.S., F.R.C.S., M.R.C.P., has been appointed Obstetric Physician to Out-patients at the Great Northern Central Hospital.

BLAKISTON, A. A., M.R.C.S., has been reappointed Medical Officer of Health by the Glastonbury Town Council.

BOND, C. S., M.B., C.M. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed Second Medical Officer by the Chelsea Board of Guardians.

CLARK, W. F., L.R.C.P., L.R.C.S. Edin., D.P.H. Lond., has been re-appointed Medical Officer of Health by the Cheshunt District Council.

CLARKE, J. MICHELL, M.A., M.D. Camb., M.R.C.P. Lond., has been appointed Professor of Pathology and Morbid Anatomy to University College, Bristol.

CUNNINGHAM, G., M.A. Cantab., D.M.D. Harv. Univ., L.D.S. R.C.S. Eng., has been appointed Dental Surgeon to the London Hospital.

DAVISON, T. S., L.D.S. R.C.S. Eng., has been appointed Honorary Dental Surgeon to the Darlington Hospital and Dispensary.

DENNIS, C. A., L.D.S. R.C.S. Irel., has been appointed Honorary Dental Surgeon to the Nottingham General Dispensary.

DOLAMORE, W. H., M.R.C.S., L.R.C.P., L.D.S. R.C.S. Eng., has been appointed Dental Surgeon to the London Hospital.

DONNELLY, W. T. B., M.B., C.M. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Medical Officer to the Miller Hospital, Greenwich, vice E. H. Ezard, resigned.

DONOVAN, WM., M.D. Durh., L.R.C.P., L.R.C.S. Edin., has been appointed Surgeon to the Erdington Dispensary.

EDGEWORTH, F. H., M.B. Camb., B.A., B.Ch., B.Sc., has been appointed Lecturer in Practical Physiology and Histology to University College, Bristol.

FEATHERSTONE, W. B., M.D. Lond., M.R.C.S., D.P.H. Camb., has been appointed Surgeon to the Erdington Dispensary.

GERATY, THOS., L.R.C.P. Irel., M.R.C.S., has been reappointed Honorary Consulting Surgeon to the Nottingham General Dispensary.

GOULD, J. E., has been appointed Analyst for the Bolton County Borough.

HALE, G. E., M.B., B.C. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Eton Sanitary District of the Eton Union.

HART, G. S., M.B., B.Ch. Irel., has been reappointed Medical Officer by the Ashby-de-la-Zouch Rural District Council.

HINGSTON, R., L.R.C.P. Lond., M.R.C.S., has been appointed Consulting Surgeon to the Liskeard Cottage Hospital.

KEMMIS, H. M., L.R.C.P. Irel., M.R.C.S., has been reappointed Medical Officer by the Bridgwater Board of Guardians.

LYONS, A. DE C., M.B. Aberd., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Axbridge Rural Sanitary District.

MACKINTOSH, ANGUS, M.D., L.F.P.S.G., has been reappointed Medical Officer of Health for the Dronfield Urban District Council Derbyshire.

MASKELL, JOHN WILLIAM, M.R.C.S., L.R.C.P. Lond., has been appointed Junior House Surgeon to the Bootle Borough Hospital.

MONCKTON, WILLIAM, L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer by the Horfield Urban District Council.

MUMBY, B. H., M.D. Aberd., M.R.C.S., D.P.H. Camb., has been appointed Medical Superintendent to the Borough Lunatic Asylum, Portsmouth, vice W. C. Bland.

PECK, H., L.R.C.P., L.R.C.S. Edin., D.P.H. Camb., has been reappointed Medical Officer by the Ormskirk Rural District Council.

PRYCE, T. D., M.R.C.S., has been reappointed Honorary Consulting Surgeon to the Nottingham General Dispensary.

RICHMOND, JAMES, M.A., M.B. Oxon., M.R.C.S., D.P.H. Camb., has been appointed Medical Officer of Health to the Urban District Councils of Handsworth and Perry Barr.

SWAYNE, WALTER C., M.B. Lond., M.R.C.S., L.R.C.P., has been appointed Lecturer in Practical Midwifery to University College, Bristol.

TOUGH, W. R., M.D., C.M. Aberd., has been reappointed Medical Officer for the Howden Sanitary District of the Auckland Union.

WHITE, G. B., M.R.C.S., has been reappointed Honorary Consulting Surgeon to the Nottingham General Dispensary.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN, Birmingham.—Resident Medical Officer, and a Resident Surgical Officer. Salaries £70 and £50 respectively, with board, washing, and attendance at the institution.

BOROUGH OF SUNDERLAND, PORT OF SUNDERLAND.—Medical Officer of Health and Public Analyst for the district of the Borough and Port. Salary £500 as Medical Officer for the Borough, £20 for the like office for the Port, and £5 as Public Analyst; in all £525 per annum. Applications to the Town Clerk, Town Hall, Sunderland.

BRADFORD INFIRMARY.—Dispensary Surgeon. Salary £100 per annum with board and residence. Also Junior House Surgeon. Salary £50 per annum, with board and residence.

BRIGHTON THROAT AND EAR HOSPITAL, Queen's-road, Brighton.—Non-resident House Surgeon. Salary at the rate of £52 per annum.

CHARING-CROSS HOSPITAL, London.—Assistant Surgeon.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Clinical Assistantship, fee £5 5s. Tenable for three months.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Assistant Physician.

DERBYSHIRE ROYAL INFIRMARY, Derby.—Clinical Assistant for six months. An honorarium of £10 after six months' satisfactory service will be given, and board, residence, and washing provided.

DUNDEE ROYAL LUNATIC ASYLUM.—Assistant Medical Officer. Salary £100 a year, with board, lodging, &c.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis-road, Shadwell, E.—House Surgeon. Board, lodging, &c.

EVANGELICAL PROTESTANT DEACONESSES' INSTITUTION AND TRAINING HOSPITAL, Tottenham.—Resident Medical Officer. Salary £60 a year.

GREENWICH UNION INFIRMARY.—Second Assistant Medical Officer, unmarried, for one year. Salary £80 per annum, with board, lodging, washing, and attendance in the infirmary, and £3 0s. 10d. per annum in lieu of beer. Applications to the Clerk to the Guardians, Union Offices, Greenwich.

GROSVENOR HOSPITAL FOR WOMEN AND CHILDREN, Vincent-square, Westminster.—Anæsthetist.

HULL ROYAL INFIRMARY.—Junior Assistant House Surgeon, for one year. Salary £40, with board and lodging.

KNIGHTON UNION.—Medical Officer for the District of Llanbister. Salary £80 per annum, exclusive of midwifery and extra medicinal fees. Applications to the Clerk to the Guardians, Knighton, Radnorshire.

LONDON COUNTY ASYLUM, Colney Hatch, Middlesex, N.—Junior Assistant Medical Officer, unmarried. Salary £120 per annum, rising by £5 a year to £150, with board, lodging, and washing. Applications to the Clerk of the Asylums Committee, London Asylums Committee Office, 21, Whitehall-place, London, S.W.

OLDHAM INFIRMARY.—Junior House Surgeon. Salary £50 per annum, with board and residence.

ROYAL ALBERT EDWARD INFIRMARY, Wigan.—Junior House Surgeon for twelve months. Salary £80 a year, with rations and apartments (exclusive of wines, spirits, and washing).

ROYAL COLLEGE OF PHYSICIANS London.—Milroy Lecturer.

THE GENERAL INFIRMARY, Leeds.—Resident Surgical Officer. Salary £100 per annum, with board, residence, and washing.

UNIVERSITY, COLLEGE, BRISTOL, FACULTY OF MEDICINE.—Medical Tutor. Salary £125.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House Physician and House Surgeon for six months. Board and lodging provided.

WEST RIDING ASYLUM, Wakefield.—Two Resident Clinical Assistants for six months. Board and furnished apartments provided.

WESTON-SUPER-MARE HOSPITAL.—House Surgeon, unmarried. Salary £80 per annum, with board and residence in the hospital.

Births, Marriages, and Deaths.

BIRTHS.

BROWN.—On March 10th, at Museum-street, Ipswich, the wife of Herbert H. Brown, M.D., B.S., F.R.C.S., of a daughter.

DUCKWORTH.—On March 6th, at 11, Gratton-street, Piccadilly, the wife of Sir Dyce Duckworth, M.D., of a son.

FRANCIS.—On Feb. 28th, at St. Andrew's, Uxbridge, the wife of L. A. Francis, M.R.C.P., of a son.

GOOD.—On March 5th, at Dorchester, Dorset, the wife of William Ernest Good, M.R.C.S., of a son.

MCGEAGH.—On March 3rd, at 28, Spellow-lane, Liverpool, the wife of R. T. McGeagh, of a son.

MACPHAIL.—On March 10th, at Rowditch, Derby, the wife of Rutherford Macphail, M.D. Edin., of a son.

NORRIS.—On March 9th, at Oak-hill-road, Surbiton, the wife of F. B. Norris, M.A., M.B., B.C. Camb., M.R.C.S. Eng., L.R.C.P. Lond., of a daughter.

ROBERTSON.—On March 8th, at Alton-road, Roehampton, S.W., the wife of A. Milne Robertson, M.D. Edin., of a daughter.

THORNTON.—On March 7th, at 49, Montagu-square, W. the Hon. Mrs. Knowsley Thornton, of a daughter.

TROW.—On March 7th, at Market-place, Devizes, Wiltshire, the wife of Vivian Trow, M.B. Aberd., of a son.

WALLIS.—On March 10th, at Old Stone House, East Grinstead, the wife of Percy Evershed Wallis, M.R.C.S., L.R.C.P., of a daughter.

WATKINS.—On March 6th, at Saxonhurst, Boscombe, Bournemouth, the wife of Walter Watkins, L.R.C.P., M.R.C.S. Eng., of a son.

MARRIAGE.

CURRIE—GOUGH-GUBBINS.—On Feb. 8th, at Harrismith, Orange Free State, Oswald James Currie, M.B., M.R.C.S., of Maritzburg, Natal, eldest son of Alexander Currie of Blackheath, to Sara, second daughter of the late George Gough-Gubbins, of Summerville, County Limerick.

DEATHS.

NICHOLSON.—On Feb. 16th, at sea, Arthur Nicholson, L.R.C.S. and L.R.C.P. Edin., Assistant-Surgeon in the Colonial Service, and fourth son of John B. Nicholson, of Clare Lodge, Haxey, aged 30.

SUTHERLAND.—On March 6th, William Hope Sutherland, M.B., C.M., Health Officer, Rangoon Municipality, eldest son of the late Dr. John Sutherland, Inspector-General of Hospitals, Bengal Army.

REVELL.—On March 1st (suddenly), at Alexandra House, Saltash, Cornwall, Richard Carter Revell, J.P., C.C., Surgeon (Mayor of Saltash).

WATKINS.—On March 5th, 1896, at Stone-Legh, Newton-le-Willows, Lancashire, Harriet Bromehead, the wife of John W. Watkins, aged 63 years.

WEATHERS.—On March 8th, at Batoum-gardens, Hammersmith, George Weathers, M.R.C.S. Eng., aged 80.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (16th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.).

TUESDAY (17th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY (18th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY (19th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Great Northern Central (Gynæcological, 2.30 P.M.).

FRIDAY (20th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.) Gt. Northern Central (2.30 P.M.).

SATURDAY (21st).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY (17th).—PATHOLOGICAL SOCIETY OF LONDON.—Papers:—Mr. J. H. Targett: Cystic and Encystic Epithelioma of the Bladder.—Mr. E. H. Fenwick: Cystic Tumour of the Bladder.—Mr. S. G. Shattock: Esogenous Adenomata of the Thyroid.—Mr. J. Berry: A Series of Thyroid Cysts and Adenomata.—Dr. Hale White: Acute Nephritis from Oxalic Acid Poisoning.—Dr. Ogle: (1) Sarcoma of the Œsophagus; (2) Papilloma of Trachea following Tracheotomy. Card Specimens:—Mr. Shattock: Saponified Necrotic Area in a Lipoma of Thigh.—Mr. Douglas Drew: Cured Aneurysm of External Iliac Artery.

WEDNESDAY (18th).—ROYAL METEOROLOGICAL SOCIETY (22, Gt. George-st., Westminster).—7.30 P.M. Mr. F. Gaster: Weather Forecasts and Storm Warnings, how they are Prepared and made Known (illustrated by diagrams, &c.).

ROYAL MICROSCOPICAL SOCIETY (20, Hanover-sq., W.).—8 P.M. Dr. A. C. Stokes: On some American Rotifera.

SOCIETY OF ARTS.—8 P.M. Dr. D. Morris: The Bahamas Sisal Industry.

THURSDAY (19th).—HARVEIAN SOCIETY (Stafford Rooms, Titchborne-street, Edgware-road, W.).—8.30 P.M. Dr. Bowles: Nauheim and the Schott Treatment of Diseases of the Heart.

SOCIETY OF ARTS (Imperial Institute, South Kensington).—8.30 P.M. Mr. J. H. Glass: The Great Landslip at Gohna, in Gurhwal, and the Measures adopted to Prevent serious Loss of Life.

SOCIETY OF ANÆSTHETISTS (20, Hanover-square, W.).—Paper by Sir Benj. Ward Richardson.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (16th).—LONDON POST-GRADUATE COURSE.—Roy. Lond. Ophthalmic Hospital, Moorfields, 1 P.M., Mr. E. T. Collins: Myopics and Mydriatics.—London Throat Hospital, Gt. Portland-st., W., 8 P.M., Dr. Whistler: Syphilis as it Affects the Larynx.

ROYAL COLLEGE OF SURGEONS.—5 P.M. Mr. W. G. Spencer: The General Pathology of Bone. (Erasmus Wilson Lecture.)

TUESDAY (17th).—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. Craig: Puerperal, Lactational, and Climacteric Insanities.

ROYAL INSTITUTION.—3 P.M. Prof. Charles Stewart: The External Covering of Plants and Animals: its Structure and Functions.

ROYAL COLLEGE OF PHYSICIANS, LONDON.—5 P.M. Dr. P. Manson: The Life History of the Malaria Germ outside the Human Body. (Goulstonian Lecture.)

WEDNESDAY (18th).—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Lecture by Dr. Beevor.

HOSPITAL FOR CONSUMPTION, &c. (Brompton).—4 P.M. Dr. Acland: Tuberculosis in Children.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Pemphigus and Dermatitis Herpetiformis.

ROYAL COLLEGE OF SURGEONS.—5 P.M. Mr. W. G. Spencer: The General Pathology of Bone. (Erasmus Wilson Lecture.)

LONDON POST-GRADUATE COURSE.—Roy. Lond. Ophthalmic Hospital, Moorfields, 8 P.M., Mr. A. S. Morton: Muscular Affections.—Hospital for Skin Diseases, Blackfriars, 4.30 P.M., Dr. Payne: Urticaria.

THURSDAY (19th).—ROYAL INSTITUTION.—3 P.M. Rev. W. Barry: Masters of Modern Thought—Goethe.

LONDON POST-GRADUATE COURSE.—Central London Sick Asylum, Cleveland-st., W., 5.30 P.M., Dr. Sansom: Clinical Lecture.—Brit. Inst. of Preventive Medicine, Gt. Russell-st., W.C., 3.30 P.M., Dr. Allan Macfadyen and Mr. A. G. Foulerton: Detection of Pathogenetic Micro-organisms in Urine.

ROYAL COLLEGE OF PHYSICIANS, LONDON.—5 P.M. Sir Dyce Duckworth: On the Sequels of Diseases. (Lumleian Lecture.)

FRIDAY (20th).—LONDON POST-GRADUATE COURSE.—King's College, 3 to 5 P.M., Prof. Crookshank: Erysipelas and Suppuration.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL.—4 P.M. Mr. Lennox Browne: The Pharyngeal Tonsil—Adenoids—Tornwaldt's Disease.

ROYAL COLLEGE OF SURGEONS.—5 P.M. Mr. W. G. Spencer: The General Pathology of Bone. (Erasmus Wilson Lecture.)

ROYAL INSTITUTION.—9 P.M. Prof. T. R. Fraser: Immunisation against Serpents' Venom and the Treatment of Snake-bite with Antivenene.

SATURDAY (21st).—ROYAL INSTITUTION.—3 P.M. Lord Rayleigh: Light.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Ichthyosis.

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index for the second half-yearly volume for 1895 was given in the issue of Dec. 28th. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

VOLUMES AND CASES.

VOLUMES for the second half of the year 1895 are now ready. Bound in cloth, gilt lettered, price 18*s*.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s*.; by post, 2*s*. 3*d*.

To be obtained on application to the Manager, accompanied by remittance.

"INSURANCE AGAINST SICKNESS OR ACCIDENT."

To the Editors of THE LANCET.

SIRS,—I feel sure you will be glad to correct an omission in your reply to "G. N. S." *re* insurance against sickness and accident in THE LANCET of March 7th. From your reply it would appear that membership in the Medical Assurance Society (33, Chancery-lane, London) does not cover disability from accident. This is not so, as the term "sickness" covers disability from accident or other illness. As the society is purely mutual and has during more than ten years past firmly established its position—it is surely the one to which the profession should first look. You also omit mention of the Sickness and Accident Assurance Association, Limited, 24, York-place, Edinburgh, an association that also adequately meets "G. N. S.'s" requirements. I feel it only right to write thus, as within the past twelve months I have been twice generously treated by both associations, to which I have belonged for some years.

I am, Sirs, yours truly,

March 7th, 1896. W. GILCHRIST BURNIE.

A Successful Candidate.—Will our correspondent kindly communicate with us?

"MEDICAL MEN AND THE INTERVIEWER."

To the Editors of THE LANCET.

SIRS,—With reference to the paragraph which appears in your last issue, headed "Medical Men and the Interviewer," would you kindly state that the name of the medical man in question appeared entirely against his wish, the information concerning the new photography being given on the express understanding that his name should not appear. I am, Sirs, yours truly,

D. B. PATERSON,
March 10th, 1896. Hon. Secretary Cardiff Medical Society.

H. E. T.—The announcement proposed is not to be approved. It is a form of advertisement, and the advertisement of professional services to all and sundry.

DISLOCATION OF THE GLOBE OF THE EYE AND CANCER IN DOGS.

To the Editors of THE LANCET.

SIRS,—Knowing the deep interest a number of your readers take in the diseases of the so-called lower animals, I have very great pleasure in sending you the following rough notes of two cases which are I believe not without interest.

Some ten or a dozen years ago we had two dogs, a male pug of the usual colour, and a female retriever of an unusual shade, entirely pale snuff. These two dogs were very good friends and playmates. Latterly, however, I noticed that the retriever was rather more snappish than usual and she walked about more slowly, and stood about, not lying down so often. She did not bark at the approach of strangers. One day she seemed rather more snappish than ordinarily and bit the pug dog in the orbital region. The eye protruded very badly as a result and appeared from its position to be almost useless. Chloroform, however, was administered, castor oil was put upon the globe of the eye, and gentle pressure was made in a direction backwards and inwards, with the result that the eye slipped backwards and the pug did not appear much the worse for the accident. This case would go far to show that a very considerable degree of dislocation of the eye may take place, in the pug dog at least, without much injury to the sight. Subsequently the pug was bitten again in the same region and with the same result, but as the protrusion this time was considered so very irremediable the pug was destroyed. Afterwards the retriever seemed to look so very sad and refused to take her food. She was taken to a distinguished "canine surgeon," who pronounced her to be suffering from "jaundice" and "disease of the liver." As this diagnosis seemed somewhat out of the way, and as I could not see any symptoms of jaundice, excepting the unusual colour of the dog's coat, which I had always regarded as normal, I myself made a careful examination of the animal, and, as there was no change in the sclerotic and no increase or diminution of the hepatic dulness, and no increase in the colour of the urine or decrease in the colour of the fæces, I came to the conclusion that there was no disease of the liver of any importance. I then found, by accident almost, that there was some small glandular enlargement in the region of the larynx, which gradually got larger. The veterinary "canine surgeon" was again asked to see the case, and adhered to his previous opinion, saying that the lump in the throat was of no importance, and that it would soon be all right. However, I did not feel so sure on this latter point, and I decided to watch the dog myself. I then noticed that this lump was moderately hard and got rapidly larger. I soon came to the conclusion that the case was probably one of cancer of the larynx. She continued to take her food in decreasing quantity, and at the same time lost flesh and never barked. One day she was, I believe, found dead in the stable. As I had taken more interest than usual in this case I determined to make a post-mortem examination, which I proceeded to do. The liver appeared to me to be normal in every way, and free from cancerous deposit. There was a large hard mass surrounding the larynx and trachea, which I myself took to the Royal College of Surgeons for the purpose of further pathological examination. What the result of that examination was I have not heard from that day to this. The death of the retriever seemed to take place from increasing weakness, as her hindquarters, instead of being above the level of the dorsal region, appeared to be considerably lower, and sloped off to an angle of about 45°, the hind legs at times suddenly giving way, and she did not seem able to go up and down stairs. With the exception of her peculiarly sad expression she did not evince that she was in any way suffering from pain and always allowed the growth to be handled freely. I very much regret that lapse of time and other circumstances prevent me from reporting these two cases as fully as I could have done at the time of the accident.

I am, Sirs, yours faithfully,
London, S.W., March 6th, 1896. ALBERT S. MORTON.

TUITION FOR CURE OF STAMMERING.

Medicus would be glad to know of any reliable teacher or suitable institution with a view to above (at moderate terms) for a boy aged sixteen years.

Mr. W. McCague.—The office of the General Medical Council is at 299, Oxford-street, London. Our correspondent should consult a solicitor with reference to his other questions.

"CYCLING AND HÆMORRHOIDS."

To the Editors of THE LANCET.

SIRS,—Will you allow me, in reply to the inquiry of "General Practitioner" with reference to the influence of cycling on hæmorrhoids and varicose veins, to tell him that the whole subject is treated in the sixth chapter of my book, the English translation of which bears the title "Cycling and Health" (second edition, Iliffe and Son). Not only hæmorrhoids and varix, but also varicocele, are immensely benefited by rational cycling, as is proved by the numerous instances communicated to me by other practitioners. In collecting the materials for the book in question I applied to 400 or 500 medical men, schoolmasters, clergymen, engineers, and other intelligent persons, begging them to give me instances of evil as well as satisfactory results. Not a single instance of harm was reported to me, although in a few cases the respondent gave his opinion that cycling might be productive of harm in this respect. Of this I was quite aware, for I have often seen young racing men with immensely distended veins in the lower extremities. But as in every other therapeutical application of cycling, it resolves itself into the question of moderation or excess, and the personal equation in this respect being a very variable one, it is often difficult to convince a given individual that his pace and distance are excessive. One healthy man may be able to do 150 miles without undue exertion, whilst another, in apparently the same physical conditions, ought not to exceed forty or fifty. Cyclists should not allow themselves to be carried away by a spirit of emulation, or, at any rate, if they do so with riders of superior capacity they may blame their own vanity and not the exercise for any harm that may result. I am, Sirs, yours truly,

Paris, March 2nd, 1896. OSCAR JENNINGS.

"THE PULSE-GLASS."

To the Editors of THE LANCET.

SIRS,—Supplementing my letter in THE LANCET of March 7th, 1896, there are other forms of pulse-glasses, including a small Cartesian figure made of hollow glass, which the hands heat by making the fluids contained in the tube and bulb boil and bubble, causes the manikins to dance up and down. Cartesian figures are so called after Des Cartes, the French philosopher. For the amusement of my children, for some time past, I have been engaged in producing playthings which are partly improved modifications of the pulse-glass. As soon as these are completed by the manufacturer, if your correspondent, "A Medical Man," will kindly privately favour me with his name and address, for the honour of his acceptance I shall be happy to send him some of these toys. I am, Sirs, yours truly,

Brighton, March 8th, 1896. J. LAWRENCE-HAMILTON, M.R.C.S.

THE COMMON COLD.

MR. GEORGE STREET is well known as an acute observer of character, a pleasant writer of unpleasant stories, and an admirable stylist. We beg to bring him to the notice of our readers in a new character—that of a clinician. It is not often that a layman writes of medical matters in a way that is worth recording, but we think Mr. Street's picture of the results of a common cold, as given in his new book, "Quales Ego," will strike everyone as singularly subtile and faithful:—"The mental effects are terrible, or would be so had you strength of emotion to compass terror withal. They give you a foretaste of the grave, or at least of that day when, old and weak and in the care of others, you will look on some written achievement of your prime and wonder at the power which was yours. For now the mind is incapable of initiative and of fresh understanding. If you read, your reading must be a book you know by heart, one whose problems you have solved or whose emotional value you have gauged. Then your mind, poor servile thing, may repeat its lesson and cheat you with an air of activity; but should it attempt to master a new idea or a new setting of a story, and insist that it equal its old endeavour, expect bewilderment, despair, fever. And if you meditate—ah! do not meditate—your mind will slip backwards, as a barrow that a man has tollingly pushed up a steep hill, and will stick fast in some rut of memory. From being an ordinarily bustling worshipper of our great western god, Fuss, you are become for the nonce an Oriental philosopher—a very Mahatma of Thibet. The world may jog as it will, philanthropists muddle, politicians mouth it, novelists preach a dozen new religions, for aught you care. You dwell apart in an island formed by screens; there you sit, intent on nothing, fearless, and hopeless. News that a despised inferior has passed you in the race for Dead Sea apples moves you not; the praise of the wise and the oblivion of the mob are alike nothing to you now. You had formed designs to do this and that, and the day of execution is passing away for ever. You care not; time may be a-flying, but why gather roses for a nose that cannot smell? Good lack! what a tiny cause has made wreck of a proper gentleman! You are no longer human—nay, scarce animal: a thing laid on the shelf, a piece of useless lumber, or just redeemed the neuter gender by suffering. I am woe for you, my friend, who have a cold in the head."

AN ARTIFICIAL SPONGE.

WE have received from Mr. Walker Riley, of Planetrees-road, Laisterdyke, Bradford, an artificial sponge which seems to possess, so far as we have tried it, some additional advantages over the ordinary article with none of its disadvantages. Unless the reticulated elastic framework of the porifera is carefully attended to it becomes in time slimy and greasy, but the new substitute, instead of retaining the dirt, grease, and chemicals from the soap, consigns them to the water, and the sponge shows no alteration in its cleanly condition after many months' use. From an economical point of view the new sponge possesses a decided advantage over the natural article, for it costs less and lasts much longer. This artificial sponge, which possesses good absorbing qualities, is made with loops attached, and by the aid of tapes the sponge can be drawn across the back and the parts of the body which are beyond the reach of the individual's hand. Another advantage is the gentle friction which this article produces, and we can thoroughly recommend its use.

WANTED, A HOME.

To the Editors of THE LANCET.

SIRS,—Can you, or any of your readers, inform me if there is a home or institution where a young woman, aged thirty-one years, who is addicted to intemperance occasionally, could be received? She would be useful as a needlewoman and could pay £1 a week.

I am, Sirs, yours truly,

March 10th, 1896. R. W.

WHAT'S IN A NAME?

WE have received the following circular from a correspondent to whom it was sent by post in an open envelope. We print it just as it stands, omitting the address, and desire to ask the Postmaster-General whether he considers it fitting that such matter should be distributed by the agency of his department?—

TO THE MEDICAL PROFESSION.

We beg to call the special attention of the Medical Profession to the new instrument (patent)

ATOCOS

for the thorough disinfection of the Vagina, &c., by Powdered Antiseptics.

Long has the necessity for such an instrument been felt and many appliances were brought into the market, all of which were soon discarded, none proving to be of a practical value.

Of all the advantages we claim for the

ATOCOS,

Invented by F. J. Justus, M.D.,

we will now only mention simplicity of use, which enables the patient to apply it with complete effect without any assistance.

The Atocos met with the greatest possible success (tens of thousands have been sold during the last few months) all over the Continent, especially Germany, where, however, apart from its use as a surgical instrument, it found the greatest favour among the public in connexion with a certain spermicide powder.

In Germany and other continental countries the advisability of putting into practice Malthus's doctrines is recognised by legislation, but not so in Great Britain. We therefore offer to supply the Atocos to *none* but the medical profession, and to them as a surgical instrument only. They, on the other hand, will know when to advise its use as a preventive, for instance, in such cases when pregnancy would lead to certain death, &c., &c.

Sample instrument and any further particulars sent to medical men on application.

Cash price 8s. each, less a discount of 33 per cent.

CARSON'S ANTI-STOOP.

To the Editors of THE LANCET.

SIRS,—Will you kindly allow me to ask through the columns of THE LANCET whether anyone can speak as to the efficiency of Carson's Anti-stoop in cases of long standing; say in a man of over forty years who has had a pronounced stoop for fifteen or twenty years.

I am, Sirs, yours faithfully,

March 2nd, 1896. ARTEGAL.

WANTED, A SUGGESTION.

To the Editors of THE LANCET.

SIRS,—I should feel grateful for any suggestion as to the best treatment of the following troublesome symptoms. An old gentleman who has recently suffered from alcoholic neuritis, but who has made fair progress towards recovery, complains of incessant and intolerable itching of both forearms accompanied by extreme mental excitement and irritability. The remedies tried are—cannabis indica, hyoscyamus, bromides, digitalis, Easton's syrup; locally, ung. atrop., salicylic acid, carbolic acid, boric acid, lin. chlorof., aconite, &c.

I am, Sirs, yours faithfully,

March 8th, 1896. NEMO.

Mr. Thos. E. Johnson is advised to consult his medical attendant.

MEDICAL ADVERTISING.

A CORRESPONDENT sends us a copy of *The Englishman* (published in Calcutta) of Feb. 6th, 1896, containing an advertisement extending over three columns and a half, headed "Dr. Maloney." In view of the statement in the advertisement that "Nothing but a sense of duty could have induced Dr. Maloney to give up his former lucrative practice, and thus advertise himself contrary to the etiquette of his profession," and of the publication by him of copies of his diplomas from the Royal College of Surgeons of England and the Society of Apothecaries of London and of his medical registration certificate, we think it right to state that his Christian names are given as William Robert Nuttall, and that the name of William Robert Nuttall Maloney appears in the Medical Register for 1896.

A CASE OF PERIODIC VOMITING.

To the Editors of THE LANCET.

SIRS,—Will any of your readers kindly give their opinion of the following case from the brief notes appended? A healthy looking girl, aged eight years, has suffered since she was five years old from periodic attacks of vomiting. She had been going to school a few months when the first attack occurred. The vomiting at first was without effort or straining, it lasted about six hours, and the interval between the attacks was from two to three weeks. Now the patient does a lot of straining, the vomiting lasts from twenty to thirty hours, and she is quite collapsed at the end of it, and the interval between the attacks is only from seven to eleven days; the eleventh day is very frequently the day of onset. The vomiting has no special relation to meals, though the first ejecta consists of food and afterwards of a watery, frothy fluid. Everything given while the attack lasts is rejected. The vomit is very acid, but microscopical examination revealed nothing abnormal; bile has only been noticed once or twice. The vomiting has never commenced in the night. During the intervals the patient seems apparently quite well, enjoys her food and attends school. A day or two before the attack begins she is observed to be paler than usual. The bowels act regularly. She now suffers at times from severe headache, but this has only troubled her lately. During the attack the patient lies on her stomach with the knees drawn up under her; she seems in a sort of stupid condition and is reluctant to speak. There is no abdominal pain. Nothing abnormal was detected from physical examination of the abdomen, or from ophthalmoscopic examination of the eyes. The patient has been seen and treated at different times by the local medical men, she has been seen by an authority on children's ailments, and been under treatment for about six weeks in a children's hospital. No treatment—dietetic, medicinal, &c.—has appeared to benefit her. The longest interval between two attacks was one of six weeks, and this was after a visit of ten days to Blackpool. The patient has never lost weight except when put on a strict diet, though now, since the attacks have become more frequent and more severe, she is beginning to lose flesh. I may add that the family history is good.

I am, Sirs, yours faithfully,

March 7th, 1896. F.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, March 12th, 1896.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Maximum Temp. Shade.	Min. Temp	Rain-fall.	Remarks at 8.30 A.M.
Mar. 6	29·74	W.	49	47	69	54	44	0·01	Overcast
,, 7	30·04	N.W.	45	41	60	54	43	...	Overcast
,, 8	30 01	S.W.	54	52	64	56	45	0·48	Raining
,, 9	29 98	W.	54	52	78	61	51	...	Raining
,, 10	30·27	N.E.	42	40	76	53	40	0 21	Hazy
,, 11	30 05	S.W.	50	48	78	60	41	0 01	Cloudy
,, 12	30 08	N.E.	44	43	52	45	43	0·06	Overcast

During the week marked copies of the following newspapers have been received: — *Accrington Observer, Wolverhampton Chronicle, Dover and County Chronicle, Devon Gazette, Poole Herald, Birmingham Post, Bedford Mercury, Yorkshire Herald, North Star, Herald (New York), Carlisle Journal, Hull Daily News, Isle of Wight Observer, Mid-Surrey Gazette, Morning Leader, Sussex Daily News, Yorkshire Post, North British Daily Mail, South Wales Daily Post, Dundee Advertiser, Liverpool Daily Post, Irish News, Edinburgh Evening News, Scotsman, Leeds Mercury, Exeter Evening Post, Newcastle Chronicle, East Anglian Daily Times, Ashton-under-Lyne Reporter, Surrey Gazette, Bristol Mercury, Hastings Independent, City Press, Times of India, Western Daily Mercury, Bradford Observer, Finchley Free Press, Pioneer Mail, Builder, Citizen, Architect, Hertfordshire Mercury, West Middlesex Standard, Reading Mercury, Mining Journal, Weekly Free Press and Aberdeen Herald, Local Government Chronicle, Brighton Gazette, Burnley Gazette, Gloucestershire Chronicle, Surrey Advertiser, Local Government Journal, Le Courrier de la Presse, The Morning Gazette and News (Blackpool), Grimsby News, Chatham News, Jarrow Guardian, The Mail (Portsmouth), Evening News (Portsmouth), &c., &c.*

Communications, Letters, &c., have been received from—

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